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September 1, 2010

AZ CORP COMMISSION
DOCKET CONTROL

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

RE: DEMAND SIDE MANAGEMENT SEMI-ANNUAL REPORT
DECISION 67744; DOCKET NO. E-01345A-03-0437 & E-01345A-05-0526

Pursuant to Decision No. 59601:

"APS shall file detailed semi-annual reports with Staff and in Docket Control on all DSM and renewables activities, although confidential information need not be filed in Docket Control."

Pursuant to Decision No. 67744:

"APS is required to file mid-year and end-year reports on each DSM program. All DSM year-end reports filed at the Commission by APS must be certified by an Officer of the Company."

Decisions Nos. 68648, 70637, and 71444 also include requirements for specific changes and additions to the DSM Semi-Annual Report.

Enclosed is the DSM Semi-Annual Report covering the period of January 1, 2010 through June 30, 2010 consistent with the above requirements. The Company is also required to provide its updated Energy Conservation Plan pursuant to the Arizona Administrative Code, section R14-2-213. This DSM Semi-Annual Report also satisfies that requirement and includes consumer education and conservation information.

If you have any questions or concerns please contact Erinn Andreasen at (602) 250-3276.

Sincerely,

Susan Casady

SC/sl
Attachments

Arizona Corporation Commission
DOCKETED

SEP 1 2010

DOCKETED BY	
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cc: Brian Bozzo
Terri Ford
Barbara Keene
Julie McNeely-Kirwan

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS
REPORT FOR THE PERIOD:
JANUARY THROUGH JUNE 2010

September 1, 2010

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

This Demand Side Management Semi-Annual Progress Report ("Progress Report") includes the following information for all APS Demand Side Management ("DSM") programs that were in place during this Reporting Period, including programs for residential, non-residential and low income customers:

- A brief description of the program;
- Program modifications;
- Program goals, objectives, and savings targets;
- Programs terminated;
- Levels of participation;
- A description of evaluation and monitoring activities and results;
- kW and kWh savings;
- Benefits and net benefits, both in dollars, as well as Performance Incentive calculation;
- Problems encountered and proposed solutions;
- Costs incurred during the Reporting Period disaggregated by type of cost, such as administrative costs, rebates, and monitoring costs;
- Findings from all research projects; and
- Other significant information.

Summary pages detailing the program expenses are provided in Tables 1, 2 and 3. Tables 4, 5 and 6 depict DSM program MW and MWh savings. Tables 7, 8 and 9 depict net benefits and the Performance Incentive calculation. Table 10 depicts the environmental benefits associated with the lifetime energy savings resulting from DSM programs.

Items included in this Progress Report as a result of Arizona Corporation Commission ("Commission" or "ACC") Decision Nos. 70637 and 70666 are:

- Year-to-Date ("YTD") and Program-to-Date ("PTD") results are reflected in the tables;
- Gross and net DSM demand and energy savings;
- Savings results are Measurement, Evaluation and Research ("MER") adjusted;
- Estimated environmental benefits;
- Non-Residential study applications for the current Reporting Period and for cumulative results; since being offered in 2006;
- School participation (YTD); and
- Health and safety, and repair and replace results are reported by measure type in the Low Income Program section.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

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ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 1

DSM Program Expenses: January 2010 – June 2010

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation ¹	Program Marketing	Planning & Admin	Total Program Cost
Residential:							
Consumer Products	\$1,608,877	\$463	\$-49	\$583,222	\$448,724	\$64,539	\$2,705,776
Existing Homes	\$3,257,760	\$79,911	\$174,694	\$828,231	\$211,872	\$41,078	\$4,593,546
New Construction	\$316,400	\$27,737	\$1,025	\$140,582	\$144,364	\$51,537	\$681,645
Appliance Recycling	\$100,620	\$0	\$0	\$290,847	\$126,128	\$684	\$518,279
Low Income	\$378,584	\$2,159	\$774	\$58,198	\$2,742	\$63,957	\$506,414
Totals for Residential	\$5,662,241	\$110,270	\$176,444	\$1,901,080	\$933,830	\$221,795	\$9,005,660
Non-Residential:							
Lg Existing Facilities	\$3,005,487	\$69,968	\$34,153	\$1,058,965	\$374,655	\$172,727	\$4,715,955
New Construction	\$1,491,276	\$25,405	\$912	\$275,488	\$179,851	\$30,846	\$2,003,778
Small Business	\$691,544	\$9,442	\$373	\$267,786	\$116,481	\$29,040	\$1,114,666
Energy Information Svcs	\$28,003	\$0	\$0	\$5,356	\$2,216	\$1,537	\$37,112
Schools ²	\$901,474	\$3,109	\$651	\$108,271	\$131,640	\$27,569	\$1,172,714
Total Non-Residential	\$6,117,784	\$107,924	\$36,089	\$1,715,866	\$804,843	\$261,719	\$9,044,225
Segment Totals	\$11,780,025	\$218,194	\$212,533	\$3,616,946	\$1,738,673	\$483,514	\$18,049,885
Program Costs							\$18,049,885
Measurement, Evaluation & Res (MER)							\$1,264,980
Performance Incentive³							*
TOTAL							\$19,314,865

1. Includes costs for Implementation Contractor ("IC") for all programs.
2. Schools are allowed to receive funding from other non-residential programs as well. Refer to the subsection on the Schools Program for additional information on total funds allocated to school districts to date.
3. The Performance Incentive is calculated in Tables 7, 8 & 9, (methodology/calculation was approved by the ACC in Decision No. 69663).

***APS has an Annual MWh savings goal, and therefore, has not estimated the Performance Incentive for this 6 month Reporting Period, but will be reporting the Performance Incentive amount in the year-end Semi-Annual Progress Report.**

Definitions

Rebates & Incentives – Dollars that go toward customer rebates and incentives, installation of low income weatherization and low income bill assistance.

Training & Technical Assistance – Dollars that are used for energy efficiency training and technical assistance.

Consumer Education – Dollars that are used to support general consumer education about energy-efficient improvements.

Program Implementation – Program delivery costs associated with implementing the program - includes implementation contract labor and overhead costs, as well as other direct program delivery costs.

Program Marketing – Expenses related to marketing the program and increasing DSM consumer awareness (direct program marketing costs as opposed to general consumer education).

Planning & Administration – APS's costs to plan, develop and administer programs-includes management of program budgets, oversight of the RFP process and implementation contractor, program development, program coordination and general overhead expenses.

Measurement, Evaluation, & Research – Activities that will identify current baseline efficiency levels and the market potential of DSM measures, perform process evaluations, verify that energy-efficient measures are installed, track savings, and identify additional energy efficiency research.

Performance Incentive – Share (%) of DSM net economic benefits (benefits minus cost), capped a percent of total DSM expenditures, depending on the percent of MWh savings goal achieved.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 2

Year-to-Date DSM Program Expenses: January 2010 – June 2010

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation ¹	Program Marketing	Planning & Admin	Total Program Cost
Residential:							
Consumer Products	\$1,608,877	\$463	\$-49	\$583,222	\$448,724	\$64,539	\$2,705,776
Existing Homes	\$3,257,760	\$79,911	\$174,694	\$828,231	\$211,872	\$41,078	\$4,593,546
New Construction	\$316,400	\$27,737	\$1,025	\$140,582	\$144,364	\$51,537	\$681,645
Appliance Recycling	\$100,620	\$0	\$0	\$290,847	\$126,128	\$684	\$518,279
Low Income	\$378,584	\$2,159	\$774	\$58,198	\$2,742	\$63,957	\$506,414
Totals for Residential	\$5,662,241	\$110,270	\$176,444	\$1,901,080	\$933,830	\$221,795	\$9,005,660
Non-Residential:							
Lg Existing Facilities	\$3,005,487	\$69,968	\$34,153	\$1,058,965	\$374,655	\$172,727	\$4,715,955
New Construction	\$1,491,276	\$25,405	\$912	\$275,488	\$179,851	\$30,846	\$2,003,778
Small Business	\$691,544	\$9,442	\$373	\$267,786	\$116,481	\$29,040	\$1,114,666
Energy Information Svcs	\$28,003	\$0	\$0	\$5,356	\$2,216	\$1,537	\$37,112
Schools ²	\$901,474	\$3,109	\$651	\$108,271	\$131,640	\$27,569	\$1,172,714
Total Non-Residential	\$6,117,784	\$107,924	\$36,089	\$1,715,866	\$804,843	\$261,719	\$9,044,225
Segment Totals	\$11,780,025	\$218,194	\$212,533	\$3,616,946	\$1,738,673	\$483,514	\$18,049,885
Program Costs							\$18,049,885
Measurement, Evaluation & Res (MER)							\$1,264,980
Performance Incentive³							*
TOTAL							\$19,314,865

1. Includes costs for Implementation Contractor (IC) for all programs.
2. Schools are allowed to receive funding from other non-residential programs as well. Refer to the subsection on the Schools Program for additional information on total funds allocated to school districts to date.
3. The Performance Incentive is calculated in Tables 7, 8 & 9, and the methodology/calculation was approved by the ACC in Decision No. 69663.

***APS has an Annual MWh savings goal, and therefore, has not estimated the Performance Incentive for this 6 month Reporting Period, but will be reporting the Performance Incentive amount in the year-end Semi-Annual Progress Report.**

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 3

Program-to-Date DSM Program Expenses: January 2005 – June 2010

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implementation ¹	Program Marketing	Planning & Admin	Total Program Cost
Residential:							
Consumer Products	\$10,698,236	\$4,401	\$50,101	\$4,014,878	\$1,769,620	\$579,877	\$17,117,113
Existing Homes	\$9,837,604	\$432,041	\$982,033	\$2,783,091	\$1,379,315	\$305,859	\$15,719,943
New Construction	\$2,985,106	\$480,210	\$122,558	\$872,591	\$1,655,578	\$428,814	\$6,544,857
Appliance Recycling	\$100,620	\$0	\$0	\$290,847	\$126,128	\$684	\$518,279
Low Income	\$5,119,510	\$61,653	\$19,421	\$560,682	\$23,796	\$520,673	\$6,305,735
Totals for Residential	\$28,741,076	\$978,305	\$1,174,113	\$8,522,089	\$4,954,437	\$1,835,907	\$46,205,927
Non-Residential:							
Lg Existing Facilities	\$15,072,935	\$434,604	\$206,161	\$5,759,400	\$1,684,373	\$1,336,058	\$24,493,531
New Construction	\$5,876,344	\$1,103,522	\$37,602	\$2,940,769	\$803,792	\$467,374	\$10,229,403
Small Business	\$1,209,546	\$27,990	\$21,389	\$1,638,047	\$364,832	\$246,327	\$3,508,131
Building Operator Training	\$0	\$56,897	\$0	\$22,043	\$15,783	\$7,480	\$102,203
Energy Information Svcs	\$77,576	\$6,027	\$583	\$99,838	\$4,928	\$24,744	\$213,696
Schools ²	\$1,927,832	\$28,611	\$11,824	\$668,347	\$385,934	\$144,533	\$3,167,081
Total Non-Residential	\$24,164,233	\$657,651	\$277,559	\$11,128,444	\$3,259,642	\$2,226,516	\$41,714,045
Segment Totals	\$52,905,309	\$1,635,956	\$1,451,672	\$19,650,533	\$8,214,079	\$4,062,423	\$87,919,972
Program Costs							\$87,919,972
Measurement, Evaluation & Res (MER)							\$5,908,441
Performance Incentive³							\$8,296,859
TOTAL							\$102,125,272

1. Includes costs for Implementation Contractor (IC) for all programs.
2. Schools are allowed to receive funding from other non-residential programs as well. Refer to the subsection on the Schools Program for additional information on total funds allocated to school districts to date.
3. The Performance Incentive is calculated in Tables 7, 8 & 9, and the methodology/calculation was approved by the ACC in Decision No. 69663 and was modified in the 2009 Settlement Agreement, Decision No. 71448. The program to date performance incentive amount is a summation of the performance incentive amount as calculated during each previous Reporting Period beginning with the January – June 2005 Semi-Annual Report.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 4

DSM Electric Savings: January 2010 – June 2010¹

DSM Program	Gross Peak MW Capacity Savings	Gross Annual MWh Savings	Gross Lifetime ² MWh Savings	Net Peak MW Capacity Savings	Net Annual MWh Savings	Net Lifetime ² MWh Savings
Residential:						
Consumer Products	5.9	62,297	374,319	4.6	48,592	291,969
Existing Homes	5.7	6,811	94,041	4.2	4,940	66,396
New Construction	1.5	2,136	42,720	1.7	2,350	46,992
Appliance Recycling	0.8	5,536	33,214	0.5	3,377	20,261
Low Income ³	0.2	179	3,893	0.2	179	3,893
Totals for Residential	14.1	76,959	548,187	11.2	59,438	429,511
Non-Residential:						
Lg Existing Facilities	5.9	55,789	732,305	5.0	45,137	591,466
New Construction	2.2	19,985	299,800	1.5	14,025	211,020
Small Business	1.7	10,323	159,997	1.5	9,173	142,775
Energy Information Svcs	0.1	583	8,745	0.1	583	8,745
Schools	1.3	13,772	206,229	1.1	10,847	164,481
Total Non-Residential	11.2	100,452	1,407,076	9.2	79,765	1,118,487
Segment Totals	25.3	177,411	1,955,263	20.4	139,203	1,547,998

1. Savings for 2008 and after are MER adjusted, savings prior to 2008 are NOT MER adjusted. Per Decision No. 69663, APS is submitting MER adjusted MW and MWh savings, which started with the January – June 2008 Semi-Annual Report. All Semi-Annual Reports submitted prior to 2008 were based on savings as filed in APS's original DSM Portfolio Plan, before any MER adjustments.
2. Refers to savings over the expected lifetime of all program measures.
3. Semi-Annual Reports submitted prior to the July-December 2007 Report inadvertently reported only annual MWh savings for the Low Income Program.

Definitions

Gross Savings – Demand and energy savings related to the DSM programs prior to accounting for free-riders or spillover.

Net Savings – Demand and energy savings related to the DSM programs after accounting for free-riders and spillover.

Free-riders – Program participants who would have installed the energy efficient DSM measures anyway, even if the program were not in operation.

Spillover – Refers to indirect energy impacts of the program and estimates savings from customers who take the energy efficient action as a result of knowledge of the program, but who do not receive an incentive through the program.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 5

Year-to-Date DSM Electric Savings: January 2010 – June 2010¹

DSM Program	Gross Peak MW Capacity Savings	Gross Annual MWh Savings	Gross Lifetime ² MWh Savings	Net Peak MW Capacity Savings	Net Annual MWh Savings	Net Lifetime ² MWh Savings
Residential:						
Consumer Products	5.9	62,297	374,319	4.6	48,592	291,969
Existing Homes	5.7	6,811	94,041	4.2	4,940	66,396
New Construction	1.5	2,136	42,720	1.7	2,350	46,992
Appliance Recycling	0.8	5,536	33,214	0.5	3,377	20,261
Low Income ³	<u>0.2</u>	<u>179</u>	<u>3,893</u>	<u>0.2</u>	<u>179</u>	<u>3,893</u>
Totals for Residential	14.1	76,959	548,187	11.2	59,438	429,511
Non-Residential:						
Lg Existing Facilities	5.9	55,789	732,305	5.0	45,137	591,466
New Construction	2.2	19,985	299,800	1.5	14,025	211,020
Small Business	1.7	10,323	159,997	1.5	9,173	142,775
Energy Information Svcs	0.1	583	8,745	0.1	583	8,745
Schools	1.3	13,772	206,229	1.1	10,847	164,481
Total Non-Residential	11.2	100,452	1,407,076	9.2	79,765	1,118,487
Segment Totals	25.3	177,411	1,955,263	20.4	139,203	1,547,998

1. Savings for 2008 and after are MER adjusted, savings prior to 2008 are NOT MER adjusted. Per Decision No. 69663, APS is submitting MER adjusted MW and MWh savings, which started with the January – June 2008 Semi-Annual Report. All Semi-Annual Reports submitted prior to 2008 were based on savings as filed in APS's original DSM Portfolio Plan, before any MER adjustments.
2. Refers to savings over the expected lifetime of all program measures.
3. Semi-Annual Reports submitted prior to the July-December 2007 Report inadvertently reported only annual MWh savings for the Low Income Program.

Definitions

Gross Savings – Demand and energy savings related to the DSM programs prior to accounting for free-riders or spillover.

Net Savings – Demand and energy savings related to the DSM programs after accounting for free-riders and spillover.

Free-riders – Program participants who would have installed the energy efficient DSM measures anyway, even if the program were not in operation.

Spillover – Refers to indirect energy impacts of the program and estimates savings from customers who take the energy efficient action as a result of knowledge of the program, but who do not receive an incentive through the program.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 6

Program-to-Date DSM Electric Savings: January 2005 – June 2010¹

DSM Program	Gross Peak MW Capacity Savings	Gross Annual MWh Savings	Gross Lifetime ² MWh Savings	Net Peak MW Capacity Savings	Net Annual MWh Savings	Net Lifetime ² MWh Savings
Residential:						
Consumer Products	78.0	594,686	3,360,909	61.4	468,002	2,644,286
Existing Homes	23.6	39,306	571,810	18.7	30,423	439,167
New Construction	14.1	27,301	546,017	13.0	24,999	499,959
Appliance Recycling	0.8	5,536	33,214	0.5	3,377	20,261
Low Income ³	<u>0.8</u>	<u>3,802</u>	<u>75,595</u>	<u>0.8</u>	<u>3,802</u>	<u>75,595</u>
Totals for Residential	117.3	670,631	4,587,545	94.4	530,610	3,679,344
Non-Residential:						
Lg Existing Facilities	31.3	262,599	3,542,231	26.0	216,244	2,915,166
New Construction	10.8	153,132	2,182,976	8.5	123,505	1,764,239
Small Business	3.4	21,018	299,610	2.9	17,945	259,235
Building Operator Training	0.2	1,001	12,447	0.1	701	8,713
Energy Information Svcs	0.5	2,738	41,064	0.5	2,738	41,064
Schools	<u>3.2</u>	<u>27,088</u>	<u>407,826</u>	<u>2.5</u>	<u>21,845</u>	<u>330,995</u>
Total Non-Residential	<u>49.4</u>	<u>467,576</u>	<u>6,486,154</u>	<u>40.5</u>	<u>382,978</u>	<u>5,319,413</u>
Segment Totals	166.7	1,138,207	11,073,699	134.9	913,587	8,998,757

1. Savings for 2008 and after are MER adjusted, savings prior to 2008 are NOT MER adjusted. Per Decision No. 69663, APS is submitting MER adjusted MW and MWh savings, which started with the January – June 2008 Semi-Annual Report. All Semi-Annual Reports submitted prior to 2008 were based on savings as filed in APS's original DSM Portfolio Plan, before any MER adjustments.
2. Refers to savings over the expected lifetime of all program measures.
3. Semi-Annual Reports submitted prior to the July-December 2007 Report inadvertently reported only annual MWh savings for the Low Income Program.

Definitions

Gross Savings – Demand and energy savings related to the DSM programs prior to accounting for free-riders or spillover.

Net Savings – Demand and energy savings related to the DSM programs after accounting for free-riders and spillover.

Free-riders – Program participants who would have installed the energy efficient DSM measures anyway, even if the program were not in operation.

Spillover – Refers to indirect energy impacts of the program and estimates savings from customers who take the energy efficient action as a result of knowledge of the program, but who do not receive an incentive through the program.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 7

DSM Societal Benefits and Performance Incentive January 2010 – June 2010

DSM Program	Program Cost	Societal Benefits	Societal Costs	Net Benefits
Residential:				
Consumer Products	\$2,705,776	\$18,063,800	\$2,915,431	\$15,148,369
Existing Homes	\$4,593,546	\$8,135,911	\$5,902,765	\$2,233,146
New Construction	\$681,645	\$5,649,433	\$1,017,819	\$4,631,614
Appliance Recycling	\$518,279	\$1,283,443	\$417,659	\$865,784
Low Income ¹	\$506,414	\$369,928	\$369,928	\$0 ²
Totals for Residential	\$9,005,660	\$33,502,515	\$10,205,943	\$22,013,129
Non-Residential:				
Lg Existing Facilities	\$4,715,955	\$30,571,037	\$7,771,147	\$22,799,890
New Construction	\$2,003,778	\$11,181,374	\$3,286,629	\$7,894,745
Small Business	\$1,114,666	\$11,128,852	\$1,298,230	\$9,830,622
Energy Information Svcs	\$37,112	\$315,264	\$63,848	\$251,416
Schools	\$1,172,714	\$9,314,055	\$2,062,020	\$7,252,035
Total Non-Residential	\$9,044,225	\$62,510,582	\$14,481,874	\$48,028,708
Segment Totals	\$18,049,885	\$96,013,097	\$24,687,817	\$70,041,837
Measurement, Evaluation & Research	\$1,264,980		\$1,264,980	\$(1,264,980)
Performance Incentive	*		*	*
Total	\$19,314,865	\$96,013,097	\$25,952,797	\$68,776,857
Performance Incentive Calculation:				
% of MWh Goal – This Reporting Period				
% of Performance Incentive Achieved				
Performance Incentive This Period³	*			

1. Program Costs include weatherization and bill assistance. Societal Costs do not include bill assistance because it does not contribute to electric savings.
2. Consistent with the ACC Staff's analysis in Decision No. 68647, the societal benefit is equal to the societal cost, resulting in a benefit to cost ratio of 1.00 and net benefits of 0.
3. The ACC approved a revised Performance Incentive calculation in Decision No. 71448, as follows. "The existing Performance Incentive shall be modified to be a tiered Performance Incentive as a % of net benefits, capped at a tiered % of program costs. The following table indicates the tiered approach based on the achievement relative to the goals:

Achievement Relative to the EE Goal	Performance Incentive as % of Net Benefits	Performance Incentive Capped at % of Program Costs
Less than 85%	0%	0%
85% to 95%	6%	12%
96% to 105%	7%	14%
106% to 115%	8%	16%
116% to 125%	9%	18%
Above 125%	10%	20%

***APS has an Annual MWh savings goal, and therefore, has not estimated the Performance Incentive for this 6 month Reporting Period, but will be reporting the Performance Incentive amount in the year-end Semi-Annual Progress Report.**

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 8

DSM Societal Benefits and Performance Incentive Year-to-Date, January 2010 – June 2010

DSM Program	Program Cost	Societal Benefits	Societal Costs	Net Benefits
Residential:				
Consumer Products	\$2,705,776	\$18,063,800	\$2,915,431	\$15,148,369
Existing Homes	\$4,593,546	\$8,135,911	\$5,902,765	\$2,233,146
New Construction	\$681,645	\$5,649,433	\$1,017,819	\$4,631,614
Appliance Recycling	\$518,279	\$1,283,443	\$417,659	\$865,784
Low Income ¹	\$506,414	\$369,928	\$369,928	\$0 ²
Totals for Residential	\$9,005,660	\$33,502,515	\$10,205,943	\$22,013,129
Non-Residential:				
Lg Existing Facilities	\$4,715,955	\$30,571,037	\$7,771,147	\$22,799,890
New Construction	\$2,003,778	\$11,181,374	\$3,286,629	\$7,894,745
Small Business	\$1,114,666	\$11,128,852	\$1,298,230	\$9,830,622
Energy Information Svcs	\$37,112	\$315,264	\$63,848	\$251,416
Schools	\$1,172,714	\$9,314,055	\$2,062,020	\$7,252,035
Total Non-Residential	\$9,044,225	\$62,510,582	\$14,481,874	\$48,028,708
Segment Totals	\$18,049,885	\$96,013,097	\$24,687,817	\$70,041,837
Measurement, Evaluation & Research	\$1,264,980		\$1,264,980	\$(1,264,980)
Performance Incentive	*		*	*
Total	\$19,314,865	\$96,013,097	\$25,952,797	\$68,776,857

1. Program Costs include weatherization and bill assistance. Societal Costs do not include bill assistance because it does not contribute to electric savings.
2. Consistent with the ACC Staff's analysis in Decision No. 68647, the societal benefit is equal to the societal cost, resulting in a benefit to cost ratio of 1.00 and net benefits of 0.
3. The ACC approved a revised Performance Incentive calculation in Decision No. 71448, as follows. "The existing Performance Incentive shall be modified to be a tiered Performance Incentive as a % of net benefits, capped at a tiered % of program costs.

***APS has an Annual MWh savings goal, and therefore, has not estimated the Performance Incentive for this 6 month Reporting Period, but will be reporting the Performance Incentive amount in the year-end Semi-Annual Progress Report.**

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

TABLE 9

DSM Societal Benefits and Performance Incentive Program-to-Date, January 2005 – June 2010

DSM Program	Program Cost	Societal Benefits	Societal Costs	Net Benefits
Residential:				
Consumer Products	\$17,117,113	\$155,417,832	\$34,589,771	\$120,828,062
Existing Homes	\$15,719,943	\$32,749,334	\$23,528,480	\$9,220,855
New Construction	\$6,544,857	\$32,017,999	\$8,521,640	\$23,496,359
Appliance Recycling	\$518,279	\$1,283,443	\$417,659	\$865,784
Low Income ¹	\$6,305,735	\$5,292,143	\$5,292,143	\$0 ²
Totals for Residential	\$46,205,927	\$226,760,751	\$72,349,692	\$154,411,059
Non-Residential:				
Lg Existing Facilities	\$24,493,531	\$114,766,805	\$42,550,319	\$72,216,486
New Construction	\$10,229,403	\$70,668,991	\$21,680,224	\$48,988,767
Small Business	\$3,508,131	\$14,539,276	\$3,996,540	\$10,542,736
Building Operator Training	\$102,203	\$424,302	\$183,392	\$240,910
Energy Information Svcs	\$213,696	\$1,372,076	\$380,398	\$991,678
Schools	\$3,167,081	\$14,467,025	\$4,754,771	\$9,712,254
Total Non-Residential	\$41,714,045	\$216,238,475	\$73,545,644	\$142,692,831
Segment Totals	\$87,919,972	\$442,999,226	\$145,895,336	\$297,103,890
Measurement, Evaluation & Research	\$5,908,441		\$5,908,441	\$(5,908,441)
Performance Incentive	\$8,296,859		\$8,296,859	\$(8,296,859)
Total	\$102,125,272	\$442,999,226	\$160,100,637	\$282,898,590

1. Program Costs include weatherization and bill assistance. Societal Costs do not include bill assistance because it does not contribute to electric savings.
2. Consistent with the ACC Staff's analysis in Decision No. 68647, the societal benefit is equal to the societal cost, resulting in a benefit to cost ratio of 1.00 and net benefits of 0.
3. The ACC approved a revised Performance Incentive calculation in Decision No. 71448, as follows. "The existing Performance Incentive shall be modified to be a tiered Performance Incentive as a % of net benefits, capped at a tiered % of program costs.

***APS has an Annual MWh savings goal, and therefore, has not estimated the Performance Incentive for this 6 month Reporting Period, but will be reporting the Performance Incentive amount in the year-end Semi-Annual Progress Report.**

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TABLE 10

Net Environmental Benefits¹

Reporting Period	Water Mil Gal ²	Sox Lbs	NOx Lbs	CO2 Mil Lbs	PM10 Lbs
January – June 2010 Reporting Period	491	6,889	130,883	1,392	38,236
YTD: January 2010 – June 2010	491	6,889	130,883	1,392	38,236
PTD: January 2005 – June 2010	2,853	40,044	760,845	8,090	222,269

1. The environmental reductions are based on the net KWh energy savings of all program measures over their expected lifetimes.
2. Some measures will result in customer water savings, which this calculation does not include. Only utility water savings are included in this calculation

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PROGRAM: RESIDENTIAL EXISTING HOMES HVAC

Description

The Residential Existing Homes Program Heating, Ventilation, and Air Conditioning ("Residential HVAC") is divided into two distinct components, 1) HVAC measures and 2) Home Performance with ENERGY STAR® ("HPwES") measures.

The HVAC measures use a combination of financial incentives, contractor training and consumer education to promote the proper installation and maintenance of energy efficient HVAC systems. The Air Conditioner ("AC") Rebate and Duct Test and Repair measures support energy efficient residential air conditioning and heating systems along with the proper installation, maintenance and repair of these systems.

The HPwES measures promote a whole house approach to energy efficiency by offering incentives for improvements to the building envelope of existing residential homes within the APS service territory. HPwES includes measures that improve the energy efficiency of the home with air sealing, insulation, shade screens, faucet aerators, and low flow showerheads.

Both components of the Residential Existing Homes HVAC program provide APS customers with referrals to contractors who meet strict program requirements for professional standards, technician training, and customer satisfaction.

The two components are discussed individually below:

a. HVAC Measures – AC Rebates and Duct Test and Repair

The AC Rebate with Quality Installation measure builds on the existing APS Qualified Contractor program. APS offers financial incentives to homeowners for buying energy efficiency equipment (≥ 13 SEER/10.8 EER), that is installed in such a manner that it meets the program requirements for air flow, refrigerant charge and sizing. The Duct Test and Repair measure provides financial incentives to customers for having their HVAC system's duct work tested for leakage and repaired.

In June 2006, APS implemented the AC Rebate measure. On August 1, 2007, APS began offering the Quality Installation measure to optimize the installation of high efficiency equipment that meets the AC Rebate measure requirements. This measure has high standards on air conditioning sizing, airflow and refrigerant charge to ensure that when the equipment is installed, it will operate at a high level of efficiency.

On December 31, 2007, APS began the Duct Test and Repair measure which offers financial incentives to customers that test and, if necessary, repair the duct work in their homes.

On April 7, 2009, the ACC approved the combination of the AC Rebate and Quality Installation ("QI") measures along with revised incentive levels. See the January through June 2009 Semi-Annual report for a detailed explanation.

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On October 7, 2009, the ACC approved APS's request to modify the contractor requirements to offer the AC Rebate and Quality Installation measures. See the July through December 2009 Semi-Annual report for a detailed explanation.

The changes made to the program in 2009 have increased the program participation volume and also improved the program's Societal Cost Test ("SCT") results. Those changes have continued to provide positive results. For this reporting period the HVAC measure's SCT was 1.39.

Program Modifications

No significant program modifications were made to the HVAC part of the Residential HVAC program during this Reporting Period.

Program Goals, Objectives and Savings Targets

The HVAC portion of the program uses a combination of financial incentives, contractor training and consumer education to promote high efficiency HVAC systems, the proper installation of this equipment and the testing and repair of the duct work in existing residential homes within the APS service territory.

APS's 2010 Energy Efficiency Implementation Plan approved by ACC Decision Nos. 71460 and 71444 estimated that the energy efficiency savings expected to result from the HVAC portion of the program could reduce peak demand by approximately 6.7 MW, 7,700 MWh annually and 105,300 MWh over the life of the measures expected to be installed in 2010.

Programs Terminated

No programs were terminated during this Reporting Period.

Levels of Participation

During this Reporting Period:

- A total of 7,219 rebates were paid through the HVAC portion of the program. That is 49% more than the same period in 2009. Specifically, APS has paid:
 1. New AC Rebate Incentive Levels (Post April 7, 2009 levels)
 - a. 1,010 of the \$175 AC rebates for 13 SEER/10.8 EER equipment with QI to customer; \$50 to contractor
 - b. 4,409 of the \$425 AC rebates for 14 - 16 SEER/10.8 EER equipment with QI to customer; \$50 to contractor
 - c. 703 of the \$525 AC rebates for 17+ SEER/10.8 EER equipment with QI to customer; \$50 to contractor
 2. 1,370 Duct Test and Repair rebates; made up of 1,097 repair rebates and 273 tests without repairs. Only the repair rebates are used for calculating the demand and energy savings shown in the savings table below.
- There are currently 190 contractors that can offer the APS AC Rebate. 149 are APS Qualified Contractors. There are 41 Rebate Eligible contractors that entered the program through the new application process approved by the ACC in October 2009 which does not require membership in the Arizona Heat Pump Council. There are now 35 contractors outside the metro Phoenix area compared to 28 at the end of 2009. There are contractors that can offer the rebates currently serving Arizona City, Aquila, Big River, Bouse, Casa Grande, Camp

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Verde, Chino Valley, Clarkdale, Coolidge, Cornville, Cottonwood, Dewey, Eloy, Flagstaff, Florence, Globe, Jerome, Kingman, Lake Havasu, Lake Montezuma, Parker, Payson, Prescott, Prescott Valley, Quartzite, Sedona, Show Low, Waddell, Wickenburg, Whitman and Yuma.

- Including both metro and non-metro training classes, 586 students participated in APS sponsored training courses in order to meet APS Qualified Contractor program training requirements. This is 3% more students than the same time period in 2009.
- The APS Energy Answer Line provided 1,760 referrals to customers seeking HVAC service, repair or replacement of their home HVAC system in this Reporting Period. That is 3,400 referrals less than the same period in 2009 which is a significant decline. Part of the reason for the decline was a very mild spring and the Rebate Eligible contractor list being available on the website, so customers did not have to use the Answer Line to get a referral.
- There are currently 56 contractors with Building Performance Institute certificates that are receiving Duct Test and Repair referrals. 1,041 Duct Rebate calls were taken during this Reporting Period. There are eight contractors outside of the Phoenix, which serve Flagstaff, Globe, Show Low, Yavapai County and Yuma.
- There were 17,729 visits to the Residential HVAC section of the aps.com website. The APS Qualified Contractor list, which is posted on aps.com, had 10,067 visits from Jan. – Jun. 2010. The Duct Test and Repair section of aps.com had 7,222 hits for the same time frame.
- There were 48,576 unique user visits to the APS Energy Survey home energy audit at aps.com. Energy savings are not currently being attributed to customers who complete the on-line audit; however, research is being conducted to estimate any resulting savings.

Evaluation and Monitoring Activities and Results

During this Reporting Period the Residential Existing Homes Program MER research data collection and analysis activities conducted by Navigant Consulting included:

- Completed end-use metering data collection for sample of high-efficiency equipment rebate participants. Results of the study were used to calibrate savings models and update savings for residential HVAC measures for 2010 implementation. The results of the analysis showed that overall annual runtime is lower than predicted and the result is absolute savings across the program are lower.
- Process began of implementing similar end-use metering data collection study with a focus on Quality Installation and Duct Test and Repair measures.
- Completed Residential HVAC measure cost update for 2010 program implementation.
- Completed run-time hour study of HVAC units of a sample of homes built by Pulte Homes to assess over-sizing of HVAC units.
- Designed and in the process of conducting customer and trade ally research to determine net-to-gross effects and market influence of the program.

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MER Adjusted Gross kW and kWh Savings¹

Incentive Type	Number of Units	Annual kWh Savings per Unit	TOTAL Annual MWh Savings	Est. Measure Life	Total Lifetime MWh	Coin. kW Demand Savings Per Unit	Total MW Savings
13 SEER/10.8 EER w/ QI, \$175	1,010	510	515	15	7,727	0.436	0.4
14 -16 SEER/10.8 EER w/ QI, \$425	4,409	791	3,488	15	52,313	0.616	2.7
17+ SEER/10.8 EER w/ QI, \$425	703	1,260	886	15	13,287	0.997	0.7
Duct Test and Repair ²	1,097	1,042	1,143	10	11,431	1.294	1.4
TOTAL	7,219		6,032		84,757		5.2

1. Includes adjustments to savings as described in the Residential Existing HVAC Program Impact and Evaluation MER Report.
2. Duct Test and Repair total number of units only shows the number of rebates paid for repair work. The rebates paid for just the Duct test are not included.

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

In addition to the savings shown above, the HVAC Program includes a number of market transformation efforts, such as contractor training and customer education activities designed to transform the market for energy efficiency. These elements of the program produce additional energy savings and benefits that are not quantified.

Benefits and Net Benefits/Performance Incentive Calculation

The MER Adjusted net benefits are provided in Tables 7, 8, and 9, as are the details for the MER Adjusted Performance Incentive Calculation.

Problems Encountered and Proposed Solutions

The changes made to the program in 2009 have increased the number of customers participating in the program significantly. The increased volume has required improvements in the rebate processing method and other parts of the program to keep the rebate fulfillment time down.

Costs Incurred

Costs incurred for this program during this Reporting Period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Res. Existing HVAC (AC Rebates & DTR)	\$3,093,510	\$45,931	\$174,693	\$554,548	\$121,662	\$35,282	\$4,025,626

During the Reporting Period, the rebate volume has been much higher than expected. Incentive spending has significantly exceeded the budget so far this year. It will be closely monitored as we go into the second half of the year. The ACC approved changes from 2009 have allowed the addition of

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more contractors which allows the program to reach more of our customers. That has increased the number of customers taking advantage of the program.

Findings from all Research Projects

NA

Other Significant Information

APS again sponsored a Wrightsoft Manual J sizing calculation class that was promoted and managed by the Electric League of Arizona. It was a full class of 25 students on May 25, 2010. We also completed an AC Rebate customer brochure that we have begun using at events and distributing to the Rebate Eligible contractors.

Residential Existing Home HVAC program marketing and consumer/contractor education efforts for this Reporting Period include:

- TV ads promoting the program ran on Cox Cable, Fox AZ, Fox Sports, KNXV, KTAZ-TV (Telemundo Spanish), Telefutura and Univision (Spanish).
- Filmed a video describing the Duct Test and Repair process and rebate that was posted on aps.com in April 2009. It was viewed 1,526 times from January to June 2010.
- Continued airing NASH Bonk commercial that mentions Duct Repair. That ad campaign has been very popular.
- Radio ads to promote the program ran on KTAR-FM in Phoenix and K-SUN (Spanish).
- Articles in: APS Lifestyles Bill Insert for March - April (Spring Check-up, Duct Test & Repair); April - May (AC Rebates); June - July (AC Rebates); July - August (AC Rebates).
- Presentations on the APS Residential DSM programs to numerous community groups. Most of the consumer education events listed under Consumer Products includes information on the AC Rebate and other APS residential programs.
- The aps.com homepage prominently features APS energy efficiency and renewable energy programs. These programs are grouped in one section of the homepage entitled "Green Choice," which is coordinated with the current advertising campaign and makes these programs easier to find for customers.

b. Home Performance with ENERGY STAR®

The HPwES measure offers home owners a \$99 comprehensive home energy checkup to help identify ways to improve energy efficiency and comfort throughout the home. This program element offers a direct install feature that includes up to 10 CFLs, 3 faucet aerators, and 1 low-flow showerhead that are installed at the time of the checkup. Additional financial incentives are available for duct sealing, air sealing, insulation, and shade screens, once a home owner has completed an HPwES checkup. Once measures are installed, rigorous test out and quality assurance protocols then verify installation quality and performance.

In January 2010, the ACC approved HPwES as a new measure under the Residential HVAC program.

On March 17th, 2010, APS began the HPwES program which provided contractor and customer incentives for whole house diagnostics and retrofitting.

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To date the program has experienced strong customer interest and a steady volume of program participation. In the first three months, program performance has been positive and we expect the number of measures installed to increase steadily throughout the year.

Program Modifications

No significant program modifications were made to the HPwES portion of the Residential HVAC program.

Program Goals, Objectives and Savings Targets

The HPwES measures promote a whole house approach to energy efficiency by offering financial incentives for improvements to the building envelope of existing residential homes within the APS service territory.

According to ACC Decision No. 71448, the APS HPwES measure must complete a minimum of 1,000 energy audits in 2010.

APS's 2010 Energy Efficiency Implementation Plan approved by ACC Decision Nos. 71460 and 71444 estimated that the energy efficiency savings expected to result from the HPwES portion of the program could reduce peak demand by approximately 1.6 MW, 2,700 MWh annually and 33,000 MWh over the life of the measures expected to be installed in 2010.

Programs Terminated

No programs were terminated during this Reporting Period.

Levels of Participation

During this Reporting Period:

- A total of 531 contractor rebates were paid through the HPwES for completed and approved energy audits. This achieves 53% of the 2010 goal in a little over three months of program activity. The number of direct install components installed during the audits are as follows:
 - a. 319 1.5 gpm low-flow shower heads with a shower start valve.
 - b. 797 1.0 gpm faucet aerators.
 - c. 4,248 compact florescent bulbs.
- APS has paid a total of 400 customer rebates for measures installed under HPwES. Specifically, APS has paid:
 - a. 187 of the \$250 rebates for duct sealing and repair.
 - b. 21 of the \$250 rebates for the air sealing only.
 - c. 92 of the \$500 rebates for air sealing and attic insulation.
 - d. 8 of the \$250 rebates for shade screens.
- There are currently 62 qualified HPwES contractors. Contractors must complete the Building Performance Institute's Building Analyst certification and undergo a mentorship the FSL Home Improvements prior to becoming active. HPwES currently serves: Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, and Yuma counties.
- The APS Home Performance with ENERGY STAR® call center has received 1,070 referral inquiries by telephone and an additional 159 by e-mail.
- There were 3,175 visits to the HPwES website from March – June 2010.

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Evaluation and Monitoring Activities and Results

During this Reporting Period the Home Performance with Energy Star® component of the Residential Existing Homes Program did not have MER research data available since this is a new program offering; therefore no analysis activity has taken place.

Gross kW and kWh Savings

Incentive Type	Number of Units	Annual kWh Savings per Unit	TOTAL Annual MWh Savings	Est. Measure Life	Total Lifetime MWh	Coin. kW Demand Savings Per Unit	Total MW Savings
Direct Install Low-Flow Showerheads with Shower Start	319	239	76	10	762	0.023	0.01
Direct Install Low-Flow Faucet Aerators	797	82	65	10	654	0.013	0.01
Direct Install CFLs	4,248	43	183	6	1,096	0.006	0.03
HPwES Duct Sealing	187	1,042	195	10	1,949	1.294	0.24
HPwES Air Sealing Only	21	1,667	35	13	455	0.892	0.02
HPwES Air Sealing and Attic Insulation	92	2,293	211	20	4,219	1.072	0.10
HPwES Shade Screens	8	1,866	15	10	149	1.300	0.01
TOTAL	5,672		780		9,284		0.4

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

In addition to the savings shown above, HPwES includes a number of market transformation efforts, such as contractor training and customer education activities designed to transform the market for energy efficiency. These elements of the program produce additional energy savings and benefits that are not quantified.

Benefits and Net Benefits/Performance Incentive Calculation

Net benefits are provided in Tables 7, 8 and 9, as are the details for the MER Adjusted Performance Incentive Calculation.

Problems Encountered and Proposed Solutions

The HPwES program element has not experienced any problems to date.

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Costs Incurred

Costs incurred for this program during this Reporting Period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Res. Existing HVAC (AC Rebates & DTR)	\$3,093,510	\$45,931	\$174,693	\$554,548	\$121,662	\$35,282	\$4,025,626
HPwES	\$164,250	\$33,980	\$0	\$273,683	\$90,210	\$5,796	\$567,919
Res. Existing HVAC Total	\$3,257,760	\$79,911	\$174,693	\$828,231	\$211,872	\$41,078	\$4,593,545

Findings from all Research Projects

NA

Other Significant Information

Home Performance with ENERGY STAR® marketing and consumer/contractor education efforts for this Reporting Period includes:

- Development of a Home Performance with ENERGY STAR® brochure that is distributed through community events, trade allies, contractors, and other industry partners.
- A stand alone website is available at www.azhomeperformance.com.
- A one third page bill insert that was included in the May-June bill.
- Development of television ad to promote the program.
- Radio ads to promote the HPwES ran on KMXR, KPKX, KNIX, KSLX, KESZ, KMLE, KOOL, KUPD in Phoenix, and sister stations in Coconino and Yavapai counties.
- Articles in: APS Lifestyles Bill Insert for April - May and June – July.
- Presentations on the APS Residential DSM programs to numerous community groups. Most of the consumer education events listed under Consumer Products includes information on the HPwES and other APS residential programs.

The aps.com homepage prominently features APS energy efficiency and renewable energy programs. These programs are grouped in one section of the homepage entitled "Green Choice," which is coordinated with the current advertising campaign and makes these programs easier to find for customers.

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PROGRAM: RESIDENTIAL NEW HOME CONSTRUCTION

Description

This program promotes high efficiency construction practices for new homes. It offers incentives to builders who meet the program's energy efficiency standards. The program emphasizes the whole building approach to improving energy efficiency and includes field testing of homes to ensure performance. Participating builders are trained to apply building science principles to assure that high-efficiency homes also have superior comfort and performance. The program also provides education for prospective homebuyers about the benefits of choosing an energy-efficient home and the features to consider.

The program takes advantage of the national ENERGY STAR® brand name, and promotes the EPA/DOE ENERGY STAR® label to prospective homebuyers. To encourage builders to meet the program's high efficiency standards, APS provides builder incentives of \$400 per home. To encourage builders to meet even higher energy efficiency standards, the program also offers a higher incentive of \$1,000 per home for builders who meet savings levels of 30% compared to standard new construction. This higher tier efficiency standard is approximately double the 15% savings of the current ENERGY STAR® homes program.

Program Modifications

On June 29, 2009, APS filed with the ACC for approval of a "second-tier" ENERGY STAR® Plus measure that proposes offering a higher incentive of \$1,000 per home for builders who meet a higher energy efficiency standard than the current measure. The ENERGY STAR® Plus measure was approved by the ACC on March 17, 2010 and was introduced to potential homebuilder participants soon thereafter. To date, six builders have signed up twelve communities and 2002 lots to participate in this new higher efficiency measure. This program enhancement, combined with the Solar Homes component of the program, represents a significant step on the road to Net-Zero Energy Homes, as ordered by the ACC in the December 2008 Decision No. 70666. In fact, some participating homebuilders are achieving total combined savings from energy efficiency and solar technologies of more than 70%.

Program Goals, Objectives and Savings Targets

The program objective is to increase the penetration of homes built to high efficiency standards. The rationale for this program is that residential new construction in the APS service territory, particularly the Phoenix metro area, has historically been one of the biggest drivers of APS's system load growth. It is more cost-effective to work with builders to implement energy efficiency at the time of construction rather than attempt to retrofit efficiency after a home has been built. For many new home measures, such as building envelope improvements, the benefits of energy efficiency upgrades will be sustained for the life of the home to produce very cost-effective savings.

APS's analysis of this program, as filed in the 2010 APS Energy Efficiency Implementation Plan, estimates that the energy efficiency savings expected to result from the Residential New Construction Program in 2010 could reduce peak demand by about 6.6 MW, 9,800 MWh annual energy savings and 196,000 MWh over the life of the measures expected to be installed in 2010.

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Programs Terminated

No programs were terminated during this Reporting Period.

Levels of Participation

During this Reporting Period, APS signed up 1,787 homes that are committed to being built to ENERGY STAR® program standards and an additional 2002 homes that are committed to being built to the new ENERGY STAR® Plus (HERS 70) program standards. At the end of this Reporting Period, there were 39 homebuilders and 133 subdivisions with 20,734 future lots signed up to participate in the program. The program currently includes ENERGY STAR® communities throughout the APS service territory including the Phoenix metro area, Yuma, Casa Grande, Florence, Prescott, Verde Valley, and Flagstaff.

APS paid homebuilder incentives for 791 APS ENERGY STAR® homes that were completed and connected to the APS system during this Reporting Period. Since the start of this program in 2006, APS has paid incentives on 7,295 ENERGY STAR® homes. No HERS 70 incentives were paid during this Reporting Period, as none of these homes were completed since this program measure was approved.

APS held several days of detailed training with participating APS ENERGY STAR® homebuilders. The training, called "Success with ENERGY STAR®", teaches builders and their subcontractors about techniques for improving construction details that impact efficiency and that allow the home to pass ENERGY STAR® inspections. The training includes customized construction detail photos and process checklists to ensure implementation accuracy at the job site. During this Reporting Period, APS held Success with ENERGY STAR® training sessions with three builders including Homes by Towne, Joseph Carl Homes, and Maracay. In addition, APS provided sales training and/or technical training assistance to numerous Arizona builders during this Reporting Period.

Evaluation and Monitoring Activities and Results

During this Reporting Period the Residential New Construction Homes program MER research data collection and analysis activities included:

- Revised and updated residential new home building energy simulation models to reflect population of homes participating in the program.
- Currently in process of conducting field research, measurement and verification of performance of non-participating builder homes.
- Designed and in the process of conducting customer and builder research to determine net-to-gross effects and market effects of the program.

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MER Adjusted Gross kW and kWh Savings*

Measure	Number of Homes Completed	Annual kWh Savings per Home	TOTAL Annual MWh Savings	Est Measure Life (yrs)	TOTAL Lifetime MWh	kW Demand Savings Per Home	TOTAL MW Savings
APS Energy Star Homes	791	2,505	2,136	20	42,720	1.5	1.5

**Includes adjustments to savings as described in the Residential New Construction Program Impact and Evaluation MER Report.*

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

In addition, program consumer education and homebuilder training efforts produce significant additional energy savings and benefits that are not quantified here.

Benefits and Net Benefits/Performance Incentive Calculation

The MER Adjusted net benefits are provided in Tables 7, 8, and 9, along with the details for the MER Adjusted Performance Incentive calculation.

Problems Encountered and Proposed Solutions

This program has been successful to date, despite the residential new construction market decline over the past couple of years. APS first indicated the market downturn in our January - June 2008 Semi-Annual DSM Report, and this concern continues at a heightened level given the current economy. While the overall market has been down, the APS program has seen increasing market share, especially as the trend for energy efficient and "green" homes has grown. However, during this Reporting Period, there continued to be a lack of new home construction activity and lower than anticipated rebates being issued for this program. There are some indications that the market is beginning to rebound, although recent housing market forecasts indicate that 2010 will be similar to 2009 in terms of total home starts.

Costs Incurred

Costs incurred for this program during this Reporting Period are listed below:

	Incentives	Training & Technical Assistance	Consumer Education	Program Implementation	Program Marketing	Planning & Admin	Program Total Cost
Res New Home Construction	\$316,400	\$27,737	\$1025	\$140,582	\$144,364	\$51,537	\$681,644

Findings from all Research Projects

No findings to report at this time.

Other Significant Information

On April 8, 2009, APS kicked-off a program promotion to homebuilders (APS ENERGY STAR® and Solar Homes) that combines demand side management and renewable energy incentives that will encourage builders to offer both energy efficiency and solar features in their new home communities.

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The program requires builders to meet the standards of the APS ENERGY STAR® Homes program as a pre-requisite for being able to access special homebuilder incentives for solar communities. This is to ensure that homes incorporate efficiency first to enable solar to be as cost effective as possible. To participate, builders commit that all of the homes in a community will be APS ENERGY STAR® homes, and that all will be "solar ready" (pre-wired and plumbed to accommodate future solar PV panels and/or water heaters). In addition, they must commit to installing PV and/or solar hot water systems included in at least 50% of the homes in a participating subdivision. During this reporting period there was significant activity in this combined energy efficiency and solar homes program with several new builders signed to participate. There are currently five participating homebuilders in the APS ENERGY STAR® and Solar Homes program (Joseph Carl Homes, Meritage Homes, Monterey Homes, Monarch Communities, Shea Homes Active Adult Lifestyles).

In recognition of the ongoing success of the APS ENERGY STAR® Homes Program, APS was selected by the US Environmental Protection Agency ("EPA") and the US Department of Energy ("DOE") as a 2010 ENERGY STAR® Sustained Excellence Award winner. This is the highest award that can be earned by an ENERGY STAR® partner, bestowed on partners who show sustained excellence in their commitment to energy efficiency and whose organization is a national model of best practices in advancing energy efficiency. APS has now earned ENERGY STAR® awards for four years running: Partner of the Year in 2007 for the APS Consumer Products program (ENERGY STAR® CFL lighting), Partner of the Year in 2008 and 2009 for the APS ENERGY STAR® Homes program, and the Sustained Excellence Award in 2010.

Program marketing and education efforts during this Reporting Period include the following:

- Ran billboard campaign in spring/summer 2010 promoting APS ENERGY STAR® Homes. The billboard message was "More Home, Less Energy Bill". The billboards ran in targeted locations near APS ENERGY STAR® Homes communities in the metro Phoenix area.
- Distributed model home sales signage that participating builders can customize with their logo to promote the benefits of ENERGY STAR® homes. The series of signs can be ordered by participating builders and customized directly online at aps.com.
- Ran a monthly two-page placement in New Homes Today (magazine targeted to prospective homebuyers).
- Developed cover page and four-page article insert to run in the July/August issue of New Homes Today magazine to promote the features and benefits of APS ENERGY STAR® Homes.
- ENERGY STAR® feature web pages on Newhomeswebzine.com – website targeted to prospective Arizona homebuyers.
- Ran placements on Homestore.com/Move.com – (website for Realtors and homebuyers).
- Distributed APS ENERGY STAR® Home program book for builder sales agents to use in selling the features of ENERGY STAR® Homes to prospective homebuyers. The books are being distributed through model home sales offices of participating APS ENERGY STAR® builders.
- Energy Cost Brochures – customized point of sale brochures that describe APS ENERGY STAR® Homes features and outline the approximate annual and monthly energy costs per model.

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- Distributed a homebuyer brochure that is targeted to new buyers which discusses the features and benefits of an ENERGY STAR® home. The brochures are being distributed at community events and at participating builders' model home sales offices.
- Information on aps.com. Website homepage has been updated to highlight APS energy efficiency and renewable energy programs. APS ENERGY STAR® Homes program is now featured prominently on aps.com.
- Construction Corner at aps.com – web pages targeted to Arizona homebuilders. Features promotion of program benefits for builders.
- Article placement in the APS Lifestyles residential newsletter in March/April and April/May newsletters.
- Radio ads aired as part of the "Better Tomorrow Starts Today" ad campaign. Focuses on the energy savings and environmental benefits of APS ENERGY STAR® Homes.
- APS ENERGY STAR® Homes TV commercial ran during sports and news segments, and as part of ongoing placement contract with Cox Cable.
- Ran an ad placement in the 2010 Homebuilder's Association member directory, back cover ad placement to promote the program to builders.
- APS was honored to be selected by the US Environmental Protection Agency (EPA) as the host for the 2010 ENERGY STAR® Homes program sponsor meeting. The two-day conference brings together the local sponsor utilities and other agencies who promote the EPA/DOE ENERGY STAR Homes® program throughout the nation. APS was selected to host this year's event in part because of the success of APS' award winning ENERGY STAR® Homes program.
- In April, APS issued a press release and ran a full page ad in the Arizona Republic to thank participating builders and homebuyers for their support in earning the EPA ENERGY STAR® Sustained Excellence Award for the APS program.

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PROGRAM: CONSUMER PRODUCTS PROGRAM

Description

The residential lighting element of the program promotes high-efficiency EPA/DOE ENERGY STAR® compact fluorescent lamps ("CFLs"). CFLs use an average of 75% less energy than standard incandescent bulbs and last up to ten times longer, typically saving consumers more than \$30 in energy costs over the life of each bulb. The program offers discounts on CFLs at local retail locations through cooperative agreements with retailers and lighting manufacturers. This provides consumers with reduced retail prices for CFLs at local lighting retailers, with prices typically at or below \$0.99 per bulb for standard 60 watt equivalent CFLs.

The Energy Efficient Pool Pump and Timer element of the Consumer Products program is designed to improve the energy efficiency in residential pool operations while maintaining equivalent or better standards for pool sanitation and cleanliness. The program promotes the installation and optimal calibration of energy efficient variable and dual speed pool pump motors and seasonal timers with rebates ranging from \$75 to \$270.

Program Modifications

On July 15, 2009, APS filed a plan with the ACC to expand the Consumer Products program to include pool pumps and seasonal pool timers as measures in the program. The Energy Efficient Pools program element was approved by the ACC on January 14, 2010 and kicked off to customers in March 2010. This new program element will provide significant opportunities for additional energy savings.

Program Goals, Objectives and Savings Targets

For the CFL element of the program, the goals are to promote the purchase of high-efficiency CFLs and increase the awareness and knowledge of retailers and consumers on the benefits of ENERGY STAR® rated lighting products.

The goal of the energy efficient pools element of the program is to promote the purchase of high efficiency variable and dual speed pool pumps and seasonal timers. In a typical Arizona home with a pool, the pool pump energy use can make up a significant portion of annual energy use. For example, a 1.5 horsepower pool pump motor running eight hours per day will use approximately 400 kWh a month or 4,800 kWh a year.

There are new variable and dual speed pool pump technologies and seasonal pool timers that provide opportunities for significant cost effective savings. These efficient pool products have yet to be widely adopted in the marketplace, although they are proven technologies.

APS's analysis of the overall Consumer Products program, including both the CFL and pools elements of the program, estimates that the energy efficiency savings expected to result from the program could reduce peak demand by about 17.7 MW, and reduce energy consumption by 128,200 MWh annually, and by 790,800 MWh over the life of the measures to be installed in 2010.

Programs Terminated

No programs were terminated during this Reporting Period.

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Levels of Participation

During this Reporting Period, the CFL element of the program resulted in sales of 1,372,285 CFLs through participating retail locations. In addition, APS distributed 13,008 CFLs during community events and consumer education seminars, for a combined total of 1,385,293 CFLs distributed during this reporting period. There were also approximately 325 retail outlets participating throughout the APS service territory where APS customers could purchase discounted CFLs. Participating retailers during this Reporting Period included: 99 Cents, Ace Hardware, Albertson's, Bed Bath and Beyond, Best Buy, Costco, CVS, Do It Best, Dollar Tree, Family Dollar, Fry's Electronics, Go Green World Products, Goodwill Industries, Grocery Outlet, Home Depot, Lowe's, Premiere Lighting, Sam's Club, TechniArt (online retailer), True Value, and Wal-mart.

The pool pump and timers element of the program received approval in January, 2010. As part of program start-up activities, the program reached out to participating product manufacturers, retailers, and pool professionals to enlist their participation. During this reporting period, program representatives conducted a number of information events and pump calibration trainings and elicited participation from a wide range of pool product retailers.

The program currently includes 165 participating retail locations. During this reporting period, six pump calibration training seminars were held with a total of 172 pool professionals trained. In addition, program representatives attended 18 pool industry association meetings to inform pool professionals about the APS rebate program.

Evaluation and Monitoring Activities and Results

During this Reporting Period the Consumer Products program MER research data collection and analysis activities included:

- Continued to review and update CFL Measure Analysis Spreadsheets and Analytic Database.
- Completed residential lighting run-time hour study. Results of the study were used to verify residential operating hours and demand coincidence factors. The results were lowering of the estimated run hours from 1,000 to actual run hours of 876; and a reduction in the coincidence factor from 10% to 6% during implementation in 2010.
- Completed CFL measure cost update for 2010 implementation.
- Conducting research to determine net-to-gross effects and market influence effects of the program.

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MER Adjusted Gross kW and kWh Savings* for CFL's

Total No. of Units Sold	Units currently in service in APS territory	Wattage	Lighting Watts Saved	HVAC Watts Saved	Hours Per Year	Est. Measure Life (yrs)	Annual MWh Savings	Lifetime MWh Savings	kW Demand Savings
378	319	7	33	10	876	6	10.16	61	1
47,003	39,663	9	31	9	876	6	1186.95	7122	96
25,119	21,196	10	30	9	876	6	613.86	3683	50
1470	1240	10	35	11	876	6	41.91	251	3
5916	4992	11	29	9	876	6	139.76	839	11
1029	868	11	34	10	876	6	28.50	171	2
630	532	11	39	12	876	6	20.01	120	2
518	437	12	48	15	876	6	20.25	122	2
511,609	431,716	13	47	14	876	6	19,587.63	117,526	1586
358,893	302,848	14	46	14	876	6	13,448.34	80,690	1089
22,904	19,327	14	51	15	876	6	951.54	5709	77
19,800	16,708	15	45	14	876	6	725.81	4355	59
89,931	75,887	15	50	15	876	6	3662.90	21,977	297
3378	2850	15	60	18	876	6	165.10	991	13
17,325	14,620	16	49	15	876	6	691.54	4149	56
4995	4215	18	57	17	876	6	231.93	1392	19
35,294	29,782	19	56	17	876	6	1610.03	9660	130
26,495	22,358	20	55	17	876	6	1187.06	7122	96
346	292	20	65	20	876	6	18.32	110	1
1168	986	23	67	20	876	6	63.75	382	5
145,867	123,088	23	77	23	876	6	9149.42	54,897	741
7188	6066	23	97	29	876	6	567.97	3408	46
524	442	26	64	19	876	6	27.32	164	2
139	117	26	69	21	876	6	7.81	47	1
48,325	40,779	26	74	22	876	6	2913.06	17,478	236
7332	6187	27	73	22	876	6	436.00	2616	35
606	511	29	121	37	876	6	59.73	358	5
6	5	30	95	29	876	6	0.46	3	0
6	5	32	68	21	876	6	0.33	2	0
90	76	32	118	36	876	6	8.65	52	1
21	18	33	117	35	876	6	2.00	12	0
6	5	40	110	33	876	6	0.54	3	0
982	829	42	108	33	876	6	86.39	518	7
1,385,293	1,168,964				SUBTOTAL		57,665.06	345,990	4670
					Line Loss Factors		7.8%		11.7%
					Reserve Capacity Factor				15%
					TOTAL		62,163	372,978	5917

*Includes adjustments to savings as described in the Consumer Products Program Impact and Evaluation MER Report.

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The program provided the following rebates to participating APS residential customers during this reporting period. This is less participation than anticipated to date, but note that many participating retailers and pool professionals are very busy during the summer months and there has been lag time associated with them entering rebates into the program database.

Measure	# Units	kW demand savings per unit	kWh energy savings per unit	Measure Life (yrs)	Total Annual MWh	Total Lifetime MWh	Total kW demand
Var. speed pump	51	.231	2,023	10	103	1030	11.8
2 speed pump	4	.123	1,074	10	4.3	43	.49
Timers	17	.115	1,005	10	17.1	171	1.96
Subtotal	72				124.4	1,244	14.3
Line Losses					7.8%		11.7%
Capacity Reserve							15%
TOTAL					134	1,341	18

Total adjusted gross savings from the Consumer Products Program during this reporting period are shown in the table below.

Measure	Total Annual MWh	Total Lifetime MWh	Total kW Demand
CFLs	62,163	372,978	5,917
Pools	134	1341	18
TOTAL	62,297	374,319	5935

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

Benefits and Net Benefits/Performance Incentive Calculation

The MER Adjusted net benefits are provided in Tables 7, 8 and 9, along with the details for the MER Adjusted Performance Incentive calculation.

Problems Encountered and Proposed Solutions

No problems were encountered during this Reporting Period.

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Costs Incurred

Costs incurred for this program during this Reporting Period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Total Cost
CFLs	\$1,593,552	\$463	(\$49)	\$425,323	\$247,717	\$63,273	\$2,330,279
Pools	\$15,325	\$0	\$0	\$157,899	\$201,007	\$1266	\$375,497
Consumer Products Total	\$1,608,877	\$463	(\$49)	\$583,222	\$448,724	\$64,539	\$2,705,776

Findings from all Research Projects

No findings to report at this time.

Other Significant Information

APS continued a CFL recycling program in partnership with participating retailers and Veolia Environmental Services, which operates a recycling facility in Phoenix. Customers can take their burned out CFLs to participating retail locations (including select Ace, True Value and Home Depot stores) throughout the APS service territory for free recycling. Retailers collect the CFLs and then send them to Veolia, where more than 99% of all materials, including the trace amounts of mercury in CFLs, are reused.

The program conducted retailer visits and retailer trainings during the Reporting Period to educate retail sales staff, assess inventories of merchandise, check point of purchase displays, address availability of qualified product, and communicate with retail sales staff.

In addition to the bulb sales at retail locations, APS purchased a supply of CFLs to use for the low income program and for customer education and awareness building purposes. APS uses these bulbs for direct installation through the APS Low Income Weatherization program (2 bulbs provided for each home that is weatherized) and to hand out at local community events and other opportunities to educate the public about CFLs.

APS conducted extensive community education and customer outreach efforts to promote the CFL program and educate customers. Consumer education events during this Reporting Period included:

- Jan 15-17: Maricopa County Home Show, Phoenix
- Jan 27: Home Depot #468
- Jan 27: Home Depot #420
- Feb 5: WalMart #34337
- Feb 10: Sam's Club #4732
- Feb 15: Home Depot #446
- Feb 17: Home Depot #475
- Feb 17: Home Depot #408
- Feb 18: Home Depot #441
- Feb 18: Harmon Solar HOA event
- Mar 3: Home Depot #483
- Mar 5: ASU Sun Devils Green Basketball Game
- Mar 5-7: Tres Rios Nature Festival

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- March 7: Heard Museum fair
- Mar 9: Coldwell Banker employee grand opening event
- Mar 10: Home Depot #401
- Mar 18-20: Build it Green Expo, Phoenix
- Mar 25: Home Depot #408
- Mar 26: Home Depot #441
- Mar 31: Home Depot #420
- Apr 2: Valley Leadership Day on the Environment
- Apr 6: Ace #7473
- Apr 7: Albertson's #968
- Apr 7: Phoenix Suns Green Game
- Apr 10: Carefree Town Plaza
- Apr 14: WalMart #1218
- Apr 20: ASU West Sustainability Fair
- Apr 21: Ace Hardware
- Apr 22: Arizona Western College Sustainability Fair
- Apr 22: City of Phoenix Earth Day Celebration
- Apr 23-25: Arizona Diamondbacks Green Homestand
- Apr 30-May 2: Maricopa County Home Show, Phoenix
- May 4: Ace Hardware
- May 5: Intel Employee Green Fair
- May 6: Home Depot #472
- May 7: Home Depot #441
- May 14-16: Yavapai County Home Show, Prescott
- May 18: The EV Project Open House
- May 19: APS Stockholders Meeting
- May 20-22: American Solar Society National Solar Conference
- May 28: Home Depot #402
- Jun 2: Albertson's #968
- Jun 4-6: Show Low Days
- Jun 9: Ace Hardware #7830
- Jun 10: Albertson's #968
- Jun 11: Home Depot #408
- Jun 17: Lowes #2295
- Jun 20: Phoenix Mercury Game
- Jun 23: Lowes #2272
- Jun 23: Home Depot #475
- Jun 25: Home Depot #420
- Jun 30: Lowes #1607

Advertising and article placements for the CFL program element included the following:

- Ran "Green Choice" campaign TV spots featuring CFL program messages on Cox Cable, local sports broadcasts (Diamondbacks, Suns) and KNXV TV.

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- Created a tool on aps.com called the "CFL Calculator" www.aps.com/main/various/CFL/calculator.html?source=hme. The tool provides customers with a way to enter all of the light fixtures in their home and see the savings in dollars and greenhouse gas emissions they could achieve by switching to CFLs. The calculator provides recommendations for which type of CFL should be used to replace each bulb in a home and then the tool will print out a custom shopping list for customers to use to purchase exactly the bulbs they need at the store.
- CFL radio spot was aired on local sports broadcasts and local news talk radio.
- Information on the homepage of aps.com including a listing of all participating retail locations and a retail locator function that shows that closest stores for any customer throughout the service area based on entering a zip code.
- Public relations and earned media including TV, radio and print articles.
- Articles in the Lifestyles residential newsletter in and issues.
- Point of sale signage at all participating retail locations.

During this reporting period, the program conducted many events for the pool industry to educate trade partners about the program. In addition, the program conducted three targeted outreach events for consumers with three different program retail partners and pool equipment manufacturers. The events were a big success with several hundred customers in attendance, and they resulted in a large amount of free media attention, including appearances on the Channel 10 and Channel 12 news shows, and the Channel 15 Sonoran Living show as well as coverage from local radio and newspapers.

Pools Community Outreach Events (in addition to presence at all other events, specialized events focused on pools rebates)

May 22:	Pools program kick-off event at Shasta Pools
May 29:	Paddock Pools kick-off event
June 5:	B&L Pools kick-off event

In addition, the program conducted a wide range of marketing and advertising activities to raise awareness about the pools element of the program including:

- Developed program brochure for consumers.
- Developed program web pages on aps.com including basic information about the program, online application forms, video content, answers to frequently asked questions, and a list of all participating pool retailers and professionals.
- Produced a short program video spot with D Baxter (Diamondbacks mascot) that airs on the Jumbotron during Diamondbacks home games and on the Diamondbacks website.
- Produced extensive collateral for in store point of sale materials, including many different styles and sizes of in-store signage.
- Conducted an extensive billboard campaign throughout the Phoenix metro area.
- Conducted radio remote events and radio advertising for the program kick-off.
- Advertising campaign during the Phoenix Coyotes playoff run including print, web, radio and in-game features.
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PROGRAM: REFRIGERATOR RECYCLING PROGRAM

Description

The program is designed to educate APS customers that their old, operating, extra refrigerator or freezer uses a great deal of energy and that by turning in their extra refrigerator or freezer, they can save up to \$100 per year. Many refrigerators and freezers being replaced are still functioning and often end up as back-up appliances in basements and garages, or are sold in the used appliance market. This program provides customers a way to remove their old, inefficient appliances from the grid.

APS customers with an old operating extra refrigerator can receive a \$30 rebate with free pick up service that can be scheduled either online at www.aps.com/turnitin or by calling toll free 877-514-6654. APS partners with JACO Environmental, Inc. to provide the free pick up and recycling service.

The APS Refrigerator Recycling Program began on February 1, 2010. This program was approved by Decision No. 71444 on December 23, 2010. Since that time, the primary focus has been on program start up and implementation. This program promotes education to the customer about the inefficiency of their second working refrigerator or freezer. APS pays a \$30 rebate to the customer for recycling their inefficient appliance and provides a free pickup of the unit at the customer's convenience.

The official Refrigerator Recycling Program launch event occurred on February 24th, and included the attendance of Commissioner Pierce and Commissioner Stump, the Phoenix Suns Gorilla, and APS President, Don Robinson. Several print and radio media, both English and Spanish, conducted interviews with Don Robinson. Additionally, earlier that morning, there was a live feed broadcast from KTVK Channel 3's morning show with an interview by Bruce Hafner, and FOX Channel 10's Jamie King during the morning newscast outlining the new program, the recycling process and the savings to APS customers.

As a result of creating this program, a recycling facility has been established in Phoenix where up to 95% of appliance elements are recycled and used to manufacture other products. Additionally, 25 new "green" jobs have been created to staff and operate the new recycling facility. During the recycling process, JACO Environmental safely disposes of all refrigerators and freezers preventing the release of hazardous chemicals into the environment.

Program Eligibility Requirements:

- Must be a current APS customer and unit must be owned by customer
- Refrigerator/freezer must be operable (maintain a cold temperature)
- Refrigerator/freezer must be plugged in (cold inside) and empty
- Refrigerator/freezer must be a standard size (between 10 – 30 cubic feet as measured on the inside)
- There must be a clear pathway to pick up and remove appliance
- There is a maximum of two units per household per year
- Someone 18 years or older must be present to sign and release unit

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Program Modifications

On June 30, 2010, APS filed for ACC approval of the opportunity to pick up refrigerators and/or freezers within our Non-Residential DSM programs. These units must still fulfill all of the current eligibility requirements including being within 10-30 cubic feet in size. The program is unable to accept units any larger in size because the recycling facility cannot demanufacture units larger than 30 cubic feet. It is anticipated that fewer than 100 units will be picked up through the Non-Residential program. These units will be tracked separately as Non-Residential units for MWh savings purposes.

APS and JACO Environmental are planning to partner with the Arizona Sears retail stores to pick up a customer's old refrigerator or freezer upon delivery of their new appliance. Sears will hold units that are picked up in a containment facility where JACO Environmental will routinely pick up as needed. This will allow the program to capture MWh savings by keeping these units out of the secondary market and off of the electric grid. APS is waiting to receive a letter of approval from Sears before additional units can be included in the program.

Program Goals, Objectives and Savings Targets

The program objective is to educate APS customers that their second, older, working refrigerator or freezer in the garage or laundry room is costing them an additional \$100 per year in energy costs to operate. Refrigerators and freezers today are much more energy efficient than models built prior to 1993. Models sold today use about 1/3 the energy of older units.

The program goal is to recycle 9,516 units in 2010, with the goal of 10,000 units each year for 2011 and 2012 respectively. APS's 2010 Energy Efficiency Implementation Plan approved by ACC Decision Nos. 71460 and 71444 estimated that the energy efficiency savings expected to result from the Refrigerator Recycling Program could reduce peak demand by approximately 1.5 MW, 10,100 MWh annually and 60,600 MWh over the life of the measures expected to be installed in 2010.

Programs Terminated

No programs/measures were terminated during this Reporting Period.

Levels of Participation

During this Reporting Period, APS recycled 3,213 refrigerators and freezers, and paid \$100,620 in incentives to customers. Units were picked up across APS' service territory statewide. At this time, the program is at 34% of goal for reaching 9,516 units in 2010. While slightly under budgeted goal YTD, program participation is expected to increase during the summer months when customers are looking for additional ways to save money on their energy costs. It is anticipated that annual goals and savings will be met by year end.

Evaluation and Monitoring Activities and Results

During this Reporting Period, the Refrigerator Recycling Program did not have MER research data available since this is a new program; therefore no analysis activity has taken place.

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MER Adjusted Gross kW and kWh Savings*

Program	Number of Units Recycled	Annual kWh Savings Per Unit	TOTAL Annual MWh Savings	Est Measure Life (yrs)	TOTAL Lifetime MWh	Coin. kW Demand Savings Per Unit	TOTAL MW Savings
Refrigerators	2,749	1,785	5,290	6	31,738	0.3	0.9
Freezers	464	1,354	677	6	4,064	0.2	0.1
TOTAL	3,213		5,967		35,802		1.01

*Final savings are adjusted for line losses (Energy 7.8%, Demand 11.7%)

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

Benefits and Net Benefits/Performance Incentive Calculation

The MER Adjusted net benefits are provided in Tables 7, 8, and 9, along with the details for the MER Adjusted Performance Incentive calculation.

Problems Encountered and Proposed Solutions

During this Reporting Period, the program has been implemented efficiently through JACO Environmental, the implementation contractor. Very few problems have been encountered thus far.

On occasion, customers living in gated communities will forget to coordinate the logistics of access through the entry gate. Sometimes an additional pickup will be required.

Customers sometimes comment about the fact that the program doesn't pickup non-working refrigerators. If this results in a customer complaint, each situation is evaluated on a case-by-case basis. It is likely that their unit will be picked up and recycled as a courtesy to the customer, but the \$30 rebate will not be extended.

Costs Incurred

Costs incurred for this program during this Reporting Period are listed below:

	Incentives	Training & Technical Assistance	Consumer Education	Program Implementation	Program Marketing	Planning & Admin	Program Total Cost
APS Refrigerator Recycling	\$100,620	\$0	\$0	\$290,847	\$126,128	\$684	\$518,279

Findings from all Research Projects

No findings to report at this time.

Other Significant Information

- Program marketing efforts during this Reporting Period include the following:
 - Created an ad campaign with Steve Nash (radio and print)
 - Newspaper Advertising (English/Spanish)
 - Billboard Advertising
 - Refrigerator Magnets
 - March Bill Inserts (English/Spanish)
 - Annual Letter (English/Spanish)

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- Kickoff event w/ television coverage
- Video footage for Diamondbacks games
- Advertising in Diamondbacks GreenStand Program
- February/March APS Lifestyles Newsletter
- June/July APS Lifestyles Newsletter (English/Spanish)
- Refrigerator Give-away Contest at Phoenix Suns Game
- The program marketing strategy for 2010 is to have a consistent print media presence throughout the year. Newspaper ads run several times monthly in the following publications:
 - Arizona Republic Newspaper
 - Prensa Hispana (Spanish)
 - Prescott Daily Courier
 - Yuma Sun
 - Flagstaff Arizona Daily Sun
 - Casa Grande Dispatch
 - Sierra Vista Herald/Bisbee Daily Review
 - Douglas Dispatch
- In March, presentations were given to all of the APS Call Center Teams to educate them about the Refrigerator Recycling Program and how APS customers can save money by recycling their second working refrigerator or freezer and receive a \$30 rebate. This information will help the APS Call Center advise customers on programs available to lower their energy bills during the summer months.
- In April 2010, APS formally became a partner with the EPA's Responsible Appliance Disposal (RAD) Program.

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PROGRAM: ENERGY WISE LOW INCOME WEATHERIZATION

Description

APS's Energy Wise Low Income Assistance Program is designed to improve the energy efficiency, safety and health attributes of homes for customers whose income falls within the defined federal poverty guidelines. This program serves low income customers with various home improvements including cooling system repair and replacement, insulation, sunscreens, water heaters, window repairs and improvements as well as other general repairs. In addition, low income families are provided crisis bill assistance. The program is administered by various community action agencies throughout APS's service territory.

Program Modifications

No modifications for this Reporting Period.

Program Goals, Objectives, and Savings Targets

- To improve the energy efficiency of homes for customers whose income falls within the defined poverty guidelines.
- To provide customers information on energy management and conservation.
- To provide assistance in paying the electric bill for qualified customers in crisis situations.
- Decision No. 68647 acknowledged the estimates that the Weatherization component of the Energy Wise Program could serve 382 homes per year (based on APS's annual budget of \$705,000) and result in reduced energy consumption of 763 MWh per year and a demand reduction of 115 kW per year.

The goals for the APS Energy Wise Low Income Weatherization program specified in APS's 2010 Energy Efficiency Implementation Plan, filed on July 15, 2009, estimates that the energy efficiency savings expected to result from the Low Income Program could reduce peak demand by about 0.2 MW and 30,000 MWh over the life of the measures, which are expected to be installed between the years 2010 – 2011.

Programs Terminated

No programs were terminated during this Reporting Period.

Levels of Participation

A total of 155 households received assistance during the Reporting Period. A single household may have received more than one type of assistance.

Type of Assistance	Number of Households
Bill Assistance	92
Health and Safety	0
Repair and Replace	0
Weatherization	63
Total	155

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Evaluation and Monitoring Activities and Results

Weatherization measures must pass the cost effectiveness test that is detailed in the federal government's Weatherization Assistance Program (WAP) rules. These rules allow certain prescriptive measures, which vary with the climate zone and type of housing construction. Measures not on the prescriptive list must be assessed by a computer analysis to determine the economic feasibility.

The Arizona Department of Commerce Energy Office ("AEO"), with information from APS, is analyzing the electric energy used in weatherized homes before and after the weatherization measures are implemented. It takes a year of data before the weatherization and another year of data after the weatherization to get an accurate gauge of the impact of the measures. As the data base grows over time, a more accurate picture of the impact of the weatherization activities will emerge.

Information from the AEO report for fiscal year 2010 is provided below:

Utility Bill Analysis

An analysis of 185 homes has been completed from July 2007 through December 2009, utilizing APS, Tucson Electric Power, Unisource Gas and Electric and Southwest Gas utility data. This analysis will be ongoing, and new data will be added and reported in the future reports.

Provided are Savings to Investment Ratios ("SIR") for total investment from all funding spent (diagnostics, energy measures and health and safety measures) and for energy related measures only (diagnostics and energy measures).

Assumptions

Present value is based on 17.5 years measure life, discount rate of 3% and a utility cost escalation rate of 3%.

Results Summary

The combined SIR of all jobs reviewed to date for funds spent on diagnostics, energy measures and health and safety measures was 1.16. Health and Safety represented 15% of expenditures.

The combined SIR of all jobs reviewed to date for funds spent on energy measures and diagnostics was 1.37.

The average saving per home reviewed was 2,650 kWh and 30 therms of natural gas (gas therms average includes all electric homes).

Gross kW and kWh Savings

Of the 155 households participating in the program, a total of 63 homes received weatherization services that contributed to the energy savings.

No. of Homes	Annual kW Savings	Annual kWh Savings	Lifetime kWh Savings
63	21.0	179,972	3,893,000

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

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The kW factor used to calculate the savings are based on data from the AEO study of 185 weatherized homes. The study normalized electric and gas savings into dollars with gas savings equaling about 10% of the total. The present value of the dollar savings was converted to "equivalent kWh" at 8 cents per kWh. The annual energy demand savings per home in this study are estimated to be 0.3 kW. A 17.5 years measure life and kWh savings factor of 2,650 kWh per home, based on the current AEO report, has been utilized to determine the appropriate kWh savings.

Benefits and Net Benefits/Performance Incentive Calculation

The net benefits for this program are provided in Tables 7, 8 and 9. The Performance Incentive calculation does not include the Energy Wise Program because, as indicated in Decision No. 68647, this program has a zero net benefit. Consequently, the net benefits for the Energy Wise Program for this Reporting Period as shown in Table 7 are \$0. However, the spending on the Energy Wise Low Income Weatherization Program is included in the total spending, on which the performance incentive is calculated.

Problems Encountered and Proposed Solutions

The American Recovery and Renewal Act ("ARRA") weatherization funding continues to impact the APS Energy Wise Weatherization program. The temporary slowdown in utility weatherization program activities is a direct result of the agencies focus on spending the ARRA funds. Nonetheless, since ARRA funds must be leveraged with existing funds, APS has commitments from the agencies that the utility funds will be expended by year end.

Costs Incurred

Costs incurred for this program during the current Reporting Period are listed below:

Activity	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Bill Assistance	\$135,726	-	\$122		\$638		\$136,486
Health & Safety		-	-	-	-	-	\$0
Repair and Replace	-	-	-	-	-	-	\$0
Weatherization	\$242,858	\$2,159	\$652	-	\$2,104	-	\$247,773
3rd Party Manager - Arizona Community Action Association	-	-	-	\$50,000	-	-	\$50,000
APS Program Support	-	-	-	\$8,198	-	\$63,957	\$72,155
Total	\$378,584	\$2,159	\$774	\$58,198	\$2,742	\$63,957	\$506,414

This table displays all Energy Wise Program costs, including Health and Safety, and Repair and Replace. However, these categories are not included in Table 1.

Measures: Health and Safety, Repair and Replace Components

Measure	Health and Safety	Repair and Replace
Air Conditioner	0	0
Heat Pump	0	0
Evaporative Cooler	0	0
Refrigerators	0	0
Water Heaters	0	0

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Findings from All Research Projects

NA

Other Significant Information

One million of the five million available for the "150% to 200% Crisis Bill Assistance" funding that was a result of the recent Rate Settlement has been distributed to the Arizona Community Action Association (ACAA) as outlined in the Settlement. These are shareholder funds and not included as part of the DSM funds. However, the administration of the program is being managed by ACAA, who also serves as the existing weatherization and crisis bill assistance program coordinator.

Program marketing efforts included:

- Participating in the Community Action Human Resources Agency (CAHRA) Resource Round-up where APS presented information about APS Residential and Non-Residential DSM programs and APS' Limited Income Assistance Programs which includes weatherization, crisis bill assistance, and the E-3 Energy Discount program.
- APS Booth at the Maricopa County Integrated Health Systems 5 Year Celebration
- Weatherization outreach and field visit to Northern Arizona Council of Governments (NACOG) and Coconino County Community Services
- Liberty School District Community Agency Resource Fair
- Primavera Music Festival – Univision
- Booth at ACAA Annual Conference

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PROGRAM: NON-RESIDENTIAL PROGRAM FOR LARGE EXISTING FACILITIES

Description

The Large Existing Facilities Program provides prescriptive incentives for owners and operators of large (over 100 kW aggregated monthly demand) non-residential facilities for energy-efficiency improvements in lighting, HVAC, motors and refrigeration applications. The Direct Install approach is available for facilities which are individually metered with a peak demand of 100 kW and less. For energy efficiency applications not covered by the prescriptive incentives, the program offers custom incentives to implement energy-efficiency measures that are evaluated on a case-by-case basis. The program also provides incentives to reduce the cost of an energy study that identifies energy saving opportunities. The program provides educational and promotional pieces designed to assist facility and business owners and operators in making decisions to improve the energy efficiency of their facilities.

Program Modifications

On January 26, 2010 the Arizona Corporation Commission approved the DSM Non-Residential Customer Repayment Financing Option with Decision No. 71460. Several program changes were made during this Reporting Period to comply with this decision including:

- Choosing National Bank of Arizona ("NBAZ") as the financing partner.
- Coordinating process with NBAZ
- Modifying the rebate applications
- Adding financing language to the marketing materials
- Developing a financing payment tool
- Training Trade Allies on the financing program

Program Goals, Objectives and Savings Targets

- Promote and support energy efficiency opportunities for existing large non-residential customers.
- Promote the installation of high-efficiency technologies including, but not limited to lighting, HVAC equipment, motors, and refrigeration systems.
- Increase the efficiency of existing facilities through the testing and retro-commissioning of large central HVAC systems, as well as other end-use measures.

APS's 2010 Energy Efficiency Implementation Plan approved by ACC Decision No. 71460 and 71444 estimated that the energy efficiency savings expected to result from the Large Existing Program could reduce annual peak demand by about 13.1 MW, 89,500 MWh annually and 1,244,000 MWh over the life of the measures expected to be installed in 2010.

Programs Terminated

No programs were terminated during this Reporting Period.

Levels of Participation

The Large Existing Facilities Program remains the strongest performing Non-Residential program since its inception. A total of 605 active applications for large existing incentives were received this Reporting Period, from 203 unique customers. Applications from School Districts and charter schools

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comprise 54 of the 605 applications. During this Reporting Period, APS paid \$3,005,487 in Large Existing program incentives.

Incentive Status by Fund for Active Applications	Incentives Paid
Large Existing – Prescriptive & Custom	\$2,867,231
Large Existing – Studies	\$138,256
Total Large Existing Funds	\$3,005,487

In Decision No. 70637, the ACC approved APS's request to continue to track DSM applications resulting from studies for which incentives have been paid, and report the semi-annual and cumulative results of its program to date tracking efforts. During this Reporting Period, there were 32 study incentives, from 18 customers, paid for a total of \$138,256. Eighteen of the 32 studies have already resulted in implementation of the associated measures. There have been 89 studies completed since program inception. Of those 89 studies, 55 have resulted in energy efficiency projects applications to date.

Direct Install

The Direct Install measures were launched in April 2009. While these measures are targeted to small businesses, program rules allow small facilities (under 100 kW demand) of large customers to participate. K-12 school buildings of any size can also participate with Direct Install measures. In this Reporting Period, 54 Direct Install projects for Large Existing Facilities were paid a total of \$167,543. Program development and outreach for Direct Install are described in the Small Business section of this Progress Report.

Evaluation and Monitoring Activities and Results

The Large Existing Facilities program MER research data collection and analysis activities for this Reporting Period included:

- Conducted ongoing review and analysis of Large Existing participant database and calculation algorithms.
- Conducted ongoing primary and secondary research of key factors and performance variables affecting savings and cost-effectiveness of a wide range of measures.
- Completed a field measurement and monitoring study of the performance of variable-speed drive measures.
- Near completion of a non-residential lighting runtime hour and coincidence factor study.
- Completed measure cost update for multiple measures promoted in the Large Existing program.
- Conducted field inspections and monitoring of the performance of water pumping plant energy use as part of the pump test and repair measure initiative.
- Conducted ongoing updates to the Measure Analysis Spreadsheets including performance assumptions, incremental cost, cost-effectiveness tests and overall documentation of assumptions.
- Designed and in the process of conducting customer and trade ally research to determine net-to-gross effects and market influence of the program.
- Researching and assessing the savings resulting from actions taken by participants in APS' training and education programs.

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MER Adjusted Gross kW and kWh Savings

The following Table reflects the MER adjusted total energy and demand saving achievements in this Reporting Period for the Large Existing Facilities. Only savings from projects that were completed and incentives paid are counted in this report.

MER Adjusted kW and kWh Gross Savings¹

kW SAVINGS ²	ANNUAL kWh SAVINGS	LIFETIME kWh SAVINGS
5,852	55,788,739	732,304,709

1. Includes adjustments to savings as described in the Solutions for Business Impact and Evaluation MER Report.
2. kW Savings is coincident peak.

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

Benefits and Net Benefits/Performance Incentive Calculation

The MER adjusted net benefits are provided in Tables 7, 8 and 9, along with the MER adjusted Performance Incentive calculation.

Problems Encountered and Proposed Solutions

There are no new problems to report.

Costs Incurred

Costs incurred for this program during this Reporting Period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Large Existing Facilities	\$3,005,487	\$69,968	\$34,153	\$1,058,965	\$374,655	\$172,727	\$4,715,955

A breakdown of all implementation contractor expenses for this Reporting Period and program is:

DSM Program	IC - Implementation	IC - Marketing	IC - Education	IC - Technical Services	IC - Total Cost
Large Existing Facilities	\$1,058,965	\$369,321	\$6,703	\$32,002	\$1,466,991

Findings from all Research Projects

NA

Other Significant Information

The focal point of program development activities centered on conveying program value to increase participation and leveraging program experience by developing technical resources, information and advertisements to engage and educate the public. These activities include the following:

1. Trade Ally Development: The Trade Ally program continues to generate interest from a variety of industry professionals. These professionals can attend a bi-weekly trade ally training meeting to learn about the Solutions for Business program and the benefits of becoming a program trade ally. During the reporting period, 78 companies expressed interest in the trade ally program and were provided program information through bi-weekly training meetings, one-on-one meetings, and special event training sessions.

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Recruitment efforts through strategic partnerships with professional associations within the energy and contracting industry, trade show and event participation and program advertisements are ongoing and continue to be effective methods for trade ally outreach.

Program trade allies received two editions of the Solutions for Business Trade Ally Newsletter during this reporting period. Newsletter articles highlighted trade ally projects, provided information on program updates, and included links to useful program information, and upcoming events and training opportunities.

Additional Trade Ally development opportunities centered on providing technical support to new and existing trade allies with enhanced focus on encouraging program participation, increasing program knowledge and improving the quality of trade ally-submitted incentive applications. Efforts to develop and leverage the existing trade ally network included program training opportunities, technical training classes, trade ally events, and program participation in trade ally hosted events.

As a result of the program's focus on trade ally development and recruiting efforts, 69 new trade allies were approved, and at the end of this Reporting Period the program had a total of 216 trade allies.

Program and Technical Training Opportunities:

In May, training was provided to direct install contractors on the newly available financing option for small business customers, governments and schools. The training was attended by 12 trade ally companies. An additional financing workshop for all program trade allies was offered on June 3rd with 106 trade ally companies. This Workshop not only consisted of financing but training on energy efficiency sales techniques. With the new energy efficiency goals we need to ensure our trade allies continue to promote energy efficient projects and the Solutions for Business program. Both workshops were offered in conjunction with National Bank of Arizona and took place at the bank's conference center.

Solutions for Business supported the efforts of the local Energy Services Coalition to restart the chapter with a signature event in June. We sponsored a Performance Contracting Workshop for Schools and Government with the coalition, which helped them recruit new members and gave the program an opportunity to showcase our incentives and to support the group, which includes many of our energy service company ("ESCO") trade allies.

We continued to work closely with the Arizona Chapter of the Association of Energy Engineers ("AEE-AZ") to promote and manage registration of the APS Technical Training series. AEE-AZ provided access to their membership to promote the trainings and the Solutions for Business program and also provided APS with turnkey registration support for the five trainings that occurred during this Reporting Period.

APS continued to work with the Air Conditioning Contractors' Association-Arizona Chapter ("ACCA") board on the ACCA Professional Air Conditioning Contractor Certification Program. APS supported the program financially through tuition reimbursement for those contractors who became Trade Allies. During this reporting period we also held several training courses with ACCA for our revised HVAC

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Tune Up incentive. We held an administrative class for paperwork and application processing and a technical training on the Stargate testing device.

Trade Ally Events

A "Trade Ally Steering Committee" meeting was held in February to discuss marketing initiatives and ideas. Participants were selected from the November Focus Group attendees and represented Direct Install and the classic program. Additional meetings will be scheduled during the second half of 2010.

Participation in Trade Ally Hosted Events

The Solutions for Business program information was provided at the following trade ally-hosted events:

- HD Supply – Wire-off Cook-Off Event
- Phillips Lighting – Road Show Event

2. Customer Awareness and Advertising:

Outreach efforts focus on finding high-value opportunities to provide the public with program information and energy efficiency education. This was accomplished with the purchase of advertising and securing of editorial space in a number of publications.

- Advertisements and article placements for the APS Solutions for Business Program during the Reporting Period included the following publications:
 - APWA (Arizona Public Works Association) Newsletter
 - ASBA (Arizona School Boards Association) Quarterly
 - AZRE (Arizona Commercial Real Estate) Magazine
 - Commercial Executive magazine
 - Electric Times
 - HVACR Today
 - Phoenix Business Journal
 - Chamber of Commerce magazines in Phoenix, Scottsdale, Tempe, Casa Grande and Flagstaff
 - Restaurateur of Arizona
 - Small Business Association ("SBA") Small Business Resource Guide
- The program also used radio advertisements to raise customer awareness and encourage participation.
- Customer awareness and interest was raised through check-presentation events and customer award ceremonies, including Maricopa County Community College District and Phoenix Children's Hospital.
- Program information was provided in two issues of APS's Success Newsletter billing insert during this Reporting Period. APS also initiated an electronic newsletter to business customers who signed up online and the program sent two newsletters.
- APS sent a targeted mailing to customers to promote the new HVAC Tune Up measure and placed print advertisements.

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3. Generate Program Awareness through key events: The program participated in the following trade shows and conferences:

- Build It Green in March
- Presenting sponsor of Red Awards in March
- On-site CB Richard Ellis training of 25 property managers in March
- Air Conditioning Contractors of America (ACCA) Trade Show in April: shared booth and session presentation with residential program, introduced the repackaged HVAC Tune Up measure.
- Valley Forward Livability Summit in April
- International Facilities Management Association (IFMA) Conference Dinner Sponsor/Presentation in April
- Commercial Executive Magazine Property Management Roundtable in May
- Presentation to the Association for Computer Operations Management (AFCOM) in May
- American Solar Energy Society/American Society of Mechanical Engineers (ASES/ASME) Conference in May
- Energy Services Coalition Performance Contracting Workshop in June

4. Expanding Technical and Training Resources:

APS's Technical Training Series offered eight classes during the first half of 2010. Training courses assist customers in understanding technologies and potential for energy savings. This understanding promotes quicker adoption of new technologies and encourages customers to undertake more in-depth and holistic projects. Classes also allow for interaction between customers, topic experts and contractors who can perform work, thus facilitating the contracting process. Feedback from this educational series indicates customers are more likely to adopt technologies than they would have without the knowledge they gained from class. Materials were developed for each training session, including class notebooks for participants, class evaluations, invitation fliers, and certificates of completion. Class fliers and registrations forms were sent out to the Program's contact list as well as through the Association of Energy Engineers (AEE) member list and Key Account Managers

The Solutions for Business program was presented at each of these programs. Program staff members were available to answer questions and provide guidance on potential projects.

Classes held in this Reporting Period included 202 total attendees in the following courses:

- **IT Webinar**, one-hour class on January 27th
- **Refrigeration** on February 24th
- **Energy Management Plans** on February 25th
- **Building Envelope** on March 24th
- **Pump Test Webinar** on April 12th
- **Indoor Air Quality** on April 28th
- **Retro-commissioning** on May 19th
- **Benchmarking with ENERGY STAR with Building Owners and Managers Association ("BOMA")** on May 25th

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The program sponsored the following training organizations and related classes:

- Green Ideas - LEED Trainings and Sustainable Building Advisor certification
- BOMA – Benchmarking with ENERGY STAR®
- ACCA – Professional Air Conditioning Technician Certification
- Electric League of Arizona -- Building Operator Training
- Electric League of Arizona -- Facility Management Technician Training

APS will continue to search out educational efforts that support market transformation among both the public and the trades.

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PROGRAM: NON-RESIDENTIAL NEW CONSTRUCTION AND MAJOR RENOVATIONS

Description

The Non-Residential New Construction and Major Renovations program includes three components: 1) design assistance/feasibility studies, 2) custom efficiency, and 3) prescriptive measures. Design assistance involves efforts to integrate energy-efficiency into a customer's design process to influence equipment/systems selection and specification as early in the design process as possible. Incentives are also available for feasibility studies that help assess savings opportunities from complex applications. Prescriptive incentives are available for energy-efficiency improvements in lighting, HVAC, motors and refrigeration applications.

APS Solutions for Business launched the "Whole Building" incentive in January 2010 to encourage design teams and building owners/developers to design and construct highly efficient buildings. The whole building incentive increases according to the building's performance. There are two components to the Whole Building incentive – a design incentive and a construction incentive. The purpose of the "design" team incentive is to encourage creative, energy-efficient design strategies at the earliest stages. The "construction" incentive is paid to the building owners/developers to help offset the cost of constructing a higher-performing building. In addition to the Whole Building design incentive, the building owners/developers also may qualify for a "studies" incentive to offset the cost of the building energy performance modeling.

Program Modifications

On January 26, 2010 the Arizona Corporation Commission approved the DSM Non-Residential New Construction high performance program element with Decision No. 71460. Program changes were made during this Reporting Period to comply with this decision including:

- A new Whole Building rebate application was developed during this reporting period. The application identifies both the owner and designer, and pays the incentive based on the improvements over a baseline energy model. Using ASHRAE 90.1, 2007 as a baseline, the incentive starts at modeling showing a 10% improvement over the baseline and increases as the efficiency of the building increases.
- Policy and procedures were developed for implementation of this measure.

Program Goals, Objectives and Savings Targets

- Promote integrated design and integrated analysis of alternative high-efficiency design packages through design assistance in new construction and major renovation applications.
- Assist the customer design team in examining alternative high-efficiency design packages through the provision of the design incentive.
- Encourage the integrated systems approach to incorporating energy-efficiency improvements in new construction and major renovation projects.
- Promote integrated energy efficiency solutions where possible to capture interactive effects and synergistic savings opportunities.

APS's 2010 Energy Efficiency Implementation Plan approved by ACC Decision No. 71460 and 71444 estimated that the energy efficiency savings expected to result from the New Construction Program could reduce annual peak demand by about 6.9 MW, 39,200 MWh annually and 607,000 MWh over the life of the measures that are expected to be installed in 2010.

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Programs Terminated

No programs were terminated during this Reporting Period.

Levels of Participation

While the impact of the economy is driving significantly fewer new construction starts, the program is still seeing robust participation for buildings that were started before the economic downturn and are now finishing construction. A total of 62 applications for New Construction incentives have been received, from 34 unique customers. Fifteen of the 62 applications are from school districts. In this Reporting Period, \$1,491,276 in New Construction incentives were paid.

Incentive Status for Active Applications	Incentives Paid
Large New Construction – Prescriptive & Custom	\$1,443,276
Large New Construction – Studies	\$48,000
Total Large New Construction Funds	\$1,491,276

In Decision No. 70637, the Commission ordered APS to continue tracking DSM customer applications resulting from studies for which incentives have been paid, and report the semi-annual and cumulative results of its program-to-date tracking efforts. During this Reporting Period, there were six design assistance study incentives paid for a total of \$48,000. Four of these six applications have resulted in energy efficiency projects to date. There have been 29 studies completed since program inception. Of those 29 studies, 18 have resulted in energy efficiency projects applications to date.

Evaluation and Monitoring Activities and Results

During this Reporting Period the Non-Residential New Construction program MER research data collection and analysis activities included:

- Conducted ongoing review and analysis of participant database and calculation algorithms.
- Conducted ongoing primary and secondary research of key factors and performance variables affecting savings and cost-effectiveness of a wide range of measures.
- Completed measure cost update for multiple measures promoted by the program.
- Conducted ongoing updates to the Measure Analysis Spreadsheets including performance assumptions, incremental cost, cost-effectiveness tests and overall documentation of assumptions.
- Conducting customer and trade ally research to determine net-to-gross effects and market influence of the program.

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MER Adjusted Gross kW and kWh Savings

The following Table reflects the MER Adjusted total energy and demand saving achievements in this Reporting Period for the Large New Construction Program. Only savings from projects that were completed and incentives paid are counted in this report.

MER Adjusted kW and kWh Gross Savings¹

kW SAVINGS ²	ANNUAL KWH SAVINGS	LIFETIME KWH SAVINGS
2,233	19,984,651	299,799,795

1. Includes adjustments to savings as described in the Solutions for Business Program Impact and Evaluation MER Report.
2. kW Savings is coincident peak.

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

Benefits and Net Benefits/Performance Incentive Calculation

The MER adjusted net benefits are provided in Tables 7, 8, and 9, along with the MER adjusted Performance Incentive calculation.

Problems Encountered and Proposed Solutions

No new problems are reported for this Reporting Period.

Costs Incurred

Costs incurred for this program during this Reporting Period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Non Res New Const	\$1,491,276	\$25,405	\$912	\$275,488	\$179,851	\$30,846	\$2,003,778

A breakdown of all implementation contractor expenses for this Reporting Period and program is:

DSM Program	IC - Implementation	IC - Marketing	IC - Education	IC - Technical Services	IC - Total Cost
Non Res New Const	\$275,488	\$176,563	\$912	\$4,355	\$457,319

Findings from all Research Projects

NA

Other Significant Information

During this Reporting Period, program development activities focused on follow up with projects in progress and increasing program participation. Specific activities are highlighted below.

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Market Outreach:

Strategic partnerships continue to play an important role in program outreach. During this Reporting Period APS added a new partner for training and trade ally outreach, the Phoenix chapter of AIA. This win-win partnership will help the program attract allies in the architectural sector and promote the Whole Building incentive. Architects can access low cost CEUs through our training program and marketing opportunities.

In addition to many of the marketing outreach activities described for the Large Existing program, marketing activities associated with the New Construction program continue to focus on educating potential program participants from the following customer segments: owner-occupied buildings, government buildings (schools, county, city, state), and signature projects.

New Construction projects have been identified and approached on a number of fronts. During this Reporting Period, the Solutions for Business program made significant contacts with the contractor community. Program staff has worked with developers and contractors throughout the project development cycle and have been actively engaged in a pipeline list of 31 new construction projects. New starts have slowed considerably; these active projects predominately were started in late 2008. Some specific examples of New Construction outreach include:

- Monthly networking at construction industry association meetings, including the Central Arizona Society of Healthcare Engineers (CASHE), the Alliance for Construction Excellence (ACE), the Arizona chapter of the US Green Building Council, and BOMA meetings. This attendance is an important part of lead development for future projects which could participate in the program. It also helps to identify and recruit potential trade allies into the program.
- Solutions for Business participation in trade events and conferences including:
 - AIA Trade Ally Training in June with 17 attendees and ongoing agreement for AIA to promote the Solutions for Business Technical Training to the members of the association.
 - APS has committed to sponsor the AIA Annual Awards in September.

Project-specific meetings with architecture and engineering firms, developers, contractors and customers continue for projects at all stages of completion. In addition, industry professionals receive program updates and program-related support. In this Reporting Period, APS Solutions for Business program staff held approximately 90 meetings to discuss program details and identify potential incentive opportunities.

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

PROGRAM: SMALL BUSINESS PROGRAM

Description

The Small Non-Residential Program provides prescriptive incentives for small non-residential customers (≤ 100 kW of aggregated demand) for energy-efficiency improvements in lighting, HVAC (heating, ventilation, and air conditioning), motors, and refrigeration applications through a simple and straightforward mechanism for program participation. In addition, Small Business customers are eligible for custom efficiency incentives to implement energy-efficiency measures. The program provides incentives for covering a portion of the cost of an energy study that identifies energy saving opportunities. The program also provides educational and promotional materials designed to assist building owners and lease-holders in making decisions to improve the energy-efficiency of their facilities. Direct Install measures were also introduced to the Small Business market in April 2009.

Program Modifications

On January 26, 2010 the Arizona Corporation Commission approved the DSM Non-Residential Customer Repayment Financing Option with Decision No. 71460. Small Businesses, in addition to Schools and Government qualify for this financing program. Several program changes were made during this Reporting Period to comply with this decision including:

- Choosing National Bank of Arizona (NBA) as the financing partner
- Coordinating program process with NBA
- Modifying the rebate applications
- Adding financing language to marketing material
- Developing a financing payment tool
- Training Trade Allies on the financing program

Also, the Direct Install program is now being marketed as Express Solutions, based upon customer feedback suggesting that the Direct Install title was confusing.

Program Goals, Objectives and Savings Targets

- Promote and support energy efficiency opportunities for small non-residential customers.
- Promote the installation of high-efficiency lighting, packaged HVAC equipment, motors, and refrigeration systems.
- Provide customers with direct energy saving opportunity identification and implementation services through the Direct Install family of measures.
- Promote cross-training and energy-efficiency assessment and referral opportunities among lighting and refrigeration contractors.

APS's 2010 Energy Efficiency Implementation Plan approved by ACC Decision No. 71460 and 71444 estimated that the energy efficiency savings expected to result from the Small Business Program could reduce annual peak demand by about 1.8 MW, 11,000 MWh annually and 170,000 MWh over the life of the measures expected to be installed in 2010.

Programs Terminated

No programs were terminated during this Reporting Period.

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

Levels of Participation

A total of 451 applications for Small Business incentives were received from 434 unique customers. In this Reporting Period, a total of \$691,544 in Small Business program incentives were paid. These incentives were paid through the Classic measures as well as the Direct Install measures. While the program offers a pre-notification process to reserve incentive funds, final applications are only processed after the project is completed and all required documentation is submitted and approved.

Incentive Status for Active Applications	Incentives Paid
Small Business – Prescriptive	\$689,016
Small Business – Studies	\$2,528
Total Small Business Funds	\$691,544

In Decision No. 70637, the Commission ordered APS to continue to track DSM applications resulting from studies for which incentives have been paid, and report the semi-annual and cumulative results of its program-to-date tracking efforts. There was one study incentive paid in the Small Business program during this Reporting Period and there have been three studies completed since program inception. Two project applications have resulted in energy efficiency projects.

Direct Install

Direct Install incentives were paid on 389 projects for Small Business customers during this Reporting Period. While small businesses are the primary target for the Direct Install offering, large customers with multiple facilities with 100 kW or less premise demand qualify for Direct Install measure incentives, and schools of any size can participate. In addition to the 389 projects paid to small businesses, an additional 74 Direct Install projects for Large Businesses and Schools were paid. The breakdown of Direct Install incentives and paid projects is listed under item seven below.

1. Active number of contractors and contractor identification:

During this Reporting Period, the following 18 approved contractors participated in the Direct Install measure program.

Accel Electric Inc
AEC Electric LLC
AP Electric
ATS Electric Inc
Bland Family Solar and Electric
DECA Southwest
Generations of Contractors LLC
House Calls Remodeling
IES Commercial
Inline Electrical Resources
J & S Electric LLC
Jen Electric
Ker Electric Inc
SuperMarket Energy Technologies
Tepcon Construction
The Signery
US Energy Services Inc

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

Wilson Electric Services Corp

Seven (7) contractor training meetings were held and attended by 18 companies interested in becoming approved to participate in the Direct Install measure. Each training meeting provided attendees with an in-depth review of the Direct Install measure software and included a "hands-on" approach that allowed participants to input sample projects into the Direct Install software. Twelve (12) new companies were approved for Direct Install measure participation during this Reporting Period.

2. Number of Direct Install jobs completed:

463 Direct Install projects were paid during this Reporting Period.

3. Dollar value of the Direct Install incentives paid to contractors:

During this Reporting Period, \$1,136,094 in Direct Install incentives was paid to contractors. This represents 67% of the total project costs.

4. Dollar value of the Direct Install jobs paid by the customer:

The total cost of the Direct Install projects during this Reporting Period was \$1,686,111. Customers paid \$550,017 towards these Direct Install projects during this reporting period.

5 Number of each Direct Install measures for which incentives were paid:

Direct Install Measure	Quantity
T12 to T8 1L 4ft	67
T12 to T8 1L 6ft	1
T12 to T8 1L 8ft	3
T12 to T8 1L 8ft to 2L 4ft	11
T12 to T8 2ft	20
2ft Delamping	1
T12 to T8 2ft Utube	62
2ft Utube Delamping	3
T12 to T8 2L 4ft	427
T12 to T8 3ft	14
3ft Delamping	8
T12 to T8 3L 4ft	34
T12 to T8 4ft	1
4ft Delamping	1277
T12 to T8 4L 4ft	74
T12 to T8 8ft	35
T12 to T8 8ft Delamping	328
6ft Delamping	2
CFL	187
Exit signs	139
Occupancy Sensors	848
Refrigeration	23
Total	3565

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

6. Number of instances when incentives were reduced because of eligibility for incentives paid by other entities:

No known occurrences during this Reporting Period.

7. Spending and savings numbers attributable to Direct Install for the period and year-to-date and program-to-date:

Reporting Period: January 2010-June 2010

Net kW SAVINGS	ANNUAL NET KWH SAVINGS	LIFETIME NET KWH SAVINGS
2,355	10,362,712	177,868,425

Year to Date

Net kW SAVINGS	ANNUAL NET KWH SAVINGS	LIFETIME NET KWH SAVINGS
2,355	10,362,712	177,868,425

Program to Date Net kW SAVINGS	ANNUAL NET KWH SAVINGS	LIFETIME NET KWH SAVINGS
2,788	12,182,2625	207,277,497

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

Direct Install Incentives by Fund	Number of Paid Projects	Incentives Paid
Large Existing Funds	54	\$167,543
New Construction Funds	0	\$0
Small Business Funds	387	\$635,395
School Funds	22	\$333,156
Total Direct Install Incentives	463	\$1,136,094

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Direct Install	\$1,136,094	\$8,781	\$347	\$249,041	\$108,327	\$27,008	\$1,529,598

A breakdown estimate of all implementation contractor expenses for this Reporting Period is:

DSM Program	IC - Implementation	IC - Marketing	IC - Education	IC - Technical Services	IC - Total Cost
Direct Install	\$233,158	\$107,616	\$347	\$1,656	\$342,777

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

A breakdown estimate of all implementation contractor expenses for Year to Date and also Program to Date is:

DSM Program	IC - Implementation	IC - Marketing	IC - Education	IC - Technical Services	IC - Total Cost
Direct Install	\$418,820	\$182,616	\$1,263	\$8,241	\$610,941

8. Descriptions of the types of businesses participating in Direct Install:

The retail sector participated in the Direct Install measure at the highest rate of frequency and accounted for 41% of Direct Install projects paid during this Reporting Period.

Participation in the Direct Install measure included the following:

- 191 retail,
- 32 office,
- 20 restaurant,
- 8 grocery,
- 2 hotel/motel,
- 12 medical,
- 5 process industrial,
- 3 warehouse
- 26 schools; and
- 164 miscellaneous projects

9. Estimate of avoided marketing or other program or administration costs:

The costs to implement and market the Small Business program prior to implementing the Direct Install measures were high on a \$/kWh basis. This is because low participation resulted in low kWh savings on which to spread implementation costs. From the program inception through 2008, implementation and marketing costs for Small Business was \$1.41M (excluding incentives). Program net annual savings achieved were 5,544,000 kWh. This resulted in program costs of \$.25/kWh for the Small Business program. In this Reporting Period, estimated Direct Install implementation and marketing costs decreased to \$0.122/kWh, due to increased kWh savings. The total program cost savings is estimated to be \$190,943. [Reduced program costs = (\$0.25 - \$0.122) x 1,491,742 net annual savings.]

Evaluation and Monitoring Activities and Results

MER research data collection and analysis activities conducted specifically for the Small Business market include:

- Conducted ongoing review and analysis of participant database and calculation algorithms.
- Conducted ongoing primary and secondary research of key factors and performance variables affecting savings and cost-effectiveness of a wide range of measures.
- In process of completing a non-residential lighting runtime hour and coincidence factor study.
- Completed measure cost update for multiple measures promoted by the program.
- Conducted ongoing updates to the Measure Analysis Spreadsheets including performance assumptions, incremental cost, cost-effectiveness tests and overall documentation of assumptions.
- Conducting customer and trade ally research to determine net-to-gross effects and market influence of the program.

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

MER Adjusted Gross kW and kWh Savings

The following Table reflects the total energy and demand saving achievements in this Reporting Period for Small Businesses. Only savings from projects that were completed and incentives paid are counted in this Progress Report.

MER Adjusted kW and kWh Gross Savings¹

kW SAVINGS ²	ANNUAL KWH SAVINGS	LIFETIME KWH SAVINGS
1,708	10,323,458	159,996,975

1. Includes adjustments to savings as described in the Solutions for Business Program Impact and Evaluation MER Report.
2. kW Savings is coincident peak.

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

Benefits and Net Benefits/Performance Incentive Calculation

The net benefits are provided in Tables 7, 8, and 9, along with the MER adjusted Performance Incentive calculation.

Costs Incurred

Costs incurred for the Small Business Program during this Reporting Period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Small Business	\$691,544	\$9,442	\$373	\$267,786	\$116,481	\$29,040	\$1,114,666

A breakdown of all implementation contractor expenses for this period and program is:

DSM Program	IC - Implementation	IC - Marketing	IC - Education	IC - Technical Services	IC - Total Cost
Small Business	\$267,786	\$115,716	\$373	\$1,781	\$385,656

Findings from all Research Projects

Not applicable.

Other Significant Information

In addition to the marketing efforts described for the Large Existing program, specific marketing activities for the Small Business program leveraged small business associations, such as Chambers of Commerce, and provided targeted program education and information. These activities included the following:

- Teamed with the City of El Mirage to inform local businesses about the Direct Install program. Conducted a morning workshop for businesses, wrote area-specific case studies and promoted through public relation channels.
- Placed print advertisements in Chamber newsletter ads, the Phoenix Business Journal and the SBA Small Business Resource Magazine;
- Produced promotional materials for Direct Install, including a brochure and ad, and provided print materials to contractors for distribution.

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

PROGRAM: SCHOOLS PROGRAM

Description

The Schools program includes a set-aside budget for schools and provides assistance in reducing the energy used in school buildings, including public, private and charter schools (K-12). The incentives available for schools include the same DSM measures that are available for all non-residential customers, including Direct Install measures for K-12 schools of any size.

Program Modifications

ACC Decision No. 71444 (December 23, 2009), approved a goal for APS to serve, the installation of energy saving measures through the Solutions for Business program of at least 100 schools by December 31, 2010. During this reporting period, a total of 58 unique schools were paid through our classic and Express Solutions programs and an additional 9 unique school sites were implemented through the EIS program, for a total of 67 unique schools participating.

On January 26, 2010 the Arizona Corporation Commission approved the DSM Non-Residential Customer Repayment Financing Option with Decision No.71460. Schools, in addition to Small Businesses and Government, qualify for this financing program. Several program changes were made during this Reporting Period to comply with this decision including:

- Choosing NBAZ as the financing partner
- Coordinating program process with NBAZ
- Modifying the rebate applications
- Adding financing language to marketing material
- Developing a financing payment tool
- Training Trade Allies on the financing program

Decision No. 71444 also approved raising the customer cap for the schools program from \$25,000 to \$100,000.

Program Goals, Objectives and Savings Targets

- Maximize the energy savings that can be attained with available DSM funds by providing schools incentives to upgrade lighting, HVAC, refrigeration, and any other energy consuming systems.
- Provide educational and training materials to facility managers and trade allies in order to aid schools in other energy conservation projects.
- Provide design assistance, commissioning, retro commissioning, and energy feasibility incentives to aid schools in identifying energy savings opportunities.
- Provide incentives for other cost effective DSM projects by allowing schools to participate in any Non-Residential DSM Program including Direct Install.

APS's 2010 Energy Efficiency Implementation Plan approved by ACC Decision No. 71460 and 71444 estimated that the energy efficiency savings expected to result from the Schools Program could reduce annual peak demand by about 3.8 MW, 18,500 MWh annually, and 279,000 MWh over the life of the measures expected to be installed in 2010.

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

Programs Terminated

No programs were terminated during this Reporting Period.

Levels of Participation

In this Reporting Period, a total of 62 applications from schools were received, representing 25 unique school districts and charter schools for a total of 56 unique schools. Schools have had a very high level of participation in the program. While school districts comprise less than 8% of APS's non-residential energy use, to date they have received 20% of the paid program incentive funds for their non-residential energy efficiency projects. The self-reported size of the school entity is based on the number of students as submitted on approved applications paid in this Reporting Period is:

Division	Size (kW)	Programs	# of Paid Applications	# of Students
Metro	>100	Prescriptive Measures - New Construction	2	7,600
Metro	>100	Prescriptive Measures - New Construction	2	58,000
Metro	>100	Prescriptive Measures - Retrofit	1	1,050
Non-Metro	>100	Custom Measures - Retrofit	4	7,785
Non-Metro	>100	Technical Assistance & Studies	2	3,700
Metro	>100	Prescriptive Measures - New Construction	1	36,000
Non-Metro	>100	Prescriptive Measures - Retrofit	9	23,800
Metro	>100	Prescriptive Measures - Retrofit, Custom Measures - Retrofit	6	37,200
Metro	>100	Prescriptive Measures - New Construction & Retrofit , Custom Measures, New construction & retrofit	7	24,300
Metro	>100	Prescriptive Measures - Retrofit	4	14,247
Metro	>100	Prescriptive Measures - Retrofit	5	14,750
Non-Metro	>100	Prescriptive Measures - New Construction	2	6,600
Metro	>100	Prescriptive Measures - New Construction	1	3,950
Non-Metro	>100	Prescriptive Measures - Retrofit, Custom Measures - Retrofit	4	600
Metro	>100	Prescriptive Measures - Retrofit	3	950
Metro	>100	Prescriptive Measures - New Construction & Retrofit	3	33,321
Metro	>100	Prescriptive Measures - Retrofit	2	37,382
Metro	>100	Prescriptive Measures - New Construction & Retrofit, Custom Measures - Retrofit	4	25,850
Metro	>100	Prescriptive Measures - Retrofit	1	26,604
Metro	>100	Prescriptive Measures - New Construction	1	790
Non-Metro	>100	Prescriptive Measures - Retrofit	1	2,324
Metro	>100	Prescriptive Measures - Retrofit	2	150
Metro	<100	Prescriptive Measures - Retrofit	1	290
Metro	<100	Prescriptive Measures - Retrofit	1	193
Metro	>100	Prescriptive Measures - Retrofit	1	178

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

When an incentive application is received from a school district and deemed eligible, funding is first allocated from the Schools budget up to a maximum of \$100,000. Any additional funding required to cover the application is then allocated from the appropriate Large Existing, New Construction or Small Business program budget.

APS paid \$1,087,886 in incentives to schools during the reporting period, of which \$901,474 was paid from the Schools program budget. The remaining \$186,412 was paid to schools from the Large Existing, New Construction or Small Business program budgets (see table below).

Incentive Status by Fund for Active Applications	Incentives Paid
Schools Budget – Prescriptive, Custom, & Direct Install	\$893,118
Schools Budget – Feasibility, Commissioning and Retro-commissioning Studies	\$8,357
Total School Funds	\$901,475
Schools Summary:	
Schools – School Funds	\$901,474
Schools – Large Existing Funds	\$103,689
Schools – New Construction Funds	\$80,850
Schools – Small Business Funds	\$1,873
Total Paid to Schools	\$1,087,886

In Decision No. 70637, the Commission ordered APS to continue to track DSM applications resulting from studies for which incentives have been paid, and report the semi-annual and cumulative results of its program-to-date tracking efforts. Two schools received study incentives during this Reporting Period. There have been 15 studies completed since program inception. Of those 15 studies, 9 have resulted in energy efficiency projects.

Schools Direct Install

Direct Install incentives were paid on 25 school projects during this Reporting Period, 22 were paid from the Schools fund. Direct Install activities for this period are described in the Small Business Program report.

Evaluation and Monitoring Activities and Results

During this Reporting Period the Schools program MER research data collection and analysis activities included:

- Conducted ongoing review and analysis of participant database and calculation algorithms.
- Conducted ongoing primary and secondary research of key factors and performance variables affecting savings and cost-effectiveness of a wide range of measures.
- In the process of completing a non-residential lighting runtime hour and coincidence factor study.
- Completed measure cost update for multiple measures promoted by the program.
- Conducted ongoing updates to the Measure Analysis Spreadsheets including performance assumptions, incremental cost, cost-effectiveness tests and overall documentation of assumptions.
- Conducting customer and trade ally research to determine net-to-gross effects and market influence of the program.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

MER Adjusted Gross kW and kWh Savings

The following table reflects the total energy and demand saving achievements for schools projects completed and paid during this Reporting Period.

MER Adjusted kW and kWh Gross Savings¹

	kW SAVINGS ²	ANNUAL KWH SAVINGS	LIFETIME KWH SAVINGS
Schools – School Funds	1296	13,772,401	206,228,881
Schools – Large Existing Funds	110	3,854,367	57,963,811
Schools – New Construction Funds	134	1,333,520	19,075,635
Schools – Small Business Funds	4	21,360	373,426
Total Attributable to Schools	1,544	18,981,647	283,641,753

1. Includes adjustments to savings as described in the Solutions for Business Program Impact and Evaluation MER Report.
2. kW is coincident peak.

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

Benefits and Net Benefits/Performance Incentive Calculation

The net benefits are provided in Tables 7, 8 and 9, along with the MER adjusted Performance Incentive calculation.

Problems Encountered and Proposed Solutions

No problems to report for this Reporting Period.

Costs Incurred

Program costs incurred during this Reporting Period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Schools	\$901,474	\$3,109	\$651	\$108,271	\$131,640	\$27,569	\$1,172,714

A breakdown of all implementation contractor expenses for this period and program is:

DSM Program	IC - Implementation	IC - Marketing	IC - Education	IC - Technical Services	IC - Total Cost
Schools	\$108,271	\$128,353	\$651	\$3,109	\$240,384

Findings from all Research Projects

There were no findings from any Research Projects during this Reporting Period.

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

Other Significant Information

In addition to many of the marketing outreach activities described for the large existing program, marketing activities associated with the Schools program consisted of five areas of focus:

- 1. Trade Ally Development:** Trade Ally recruitment and support efforts focused on improving program knowledge by providing opportunities for development and training. Outreach efforts focused particularly on the state approved ESCO's who have contracts for all the stimulus funded projects, and many others since enabling legislation allows districts to use performance contracting.
- 2. Customer awareness and project generation:** During this reporting period a full time schools outreach position was added to the implementation team staff. This position first concentrated on stimulus funded projects and then all school districts. Ninety-nine contacts have been made including phone calls, emails and meetings with districts to identify potential projects.
- 3. School Education to improve Energy Efficiency: Performance Contracting for Schools Workshop June 24.** The Solutions for Business program sponsored a half-day workshop for Arizona school districts and local governments to help them with the management of performance contracts. The workshop had approximately 100 participants between the two audiences. APS presented on Solutions for Business and had a display table at the event.
- 4. Coordination with the Schools Facility Board:** While the program has coordinated with the Schools Facility Board ("SFB") since the program launch, briefings were held with the Arizona SFB during this Reporting Period on EIS, financing and HVAC Tune Up to maximize school use of all programs. Staff attends all SFB meetings.
- 5. Coordination with the Arizona School Board Association:** The program advertises in and has submitted articles to the ASBA newsletter in 2010. We are exploring opportunities to present at association educational seminars.

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

PROGRAM: ENERGY INFORMATION SERVICES ("EIS") PROGRAM

Description

The EIS Program, which was first made available to APS customers in November 2006, helps large customers (>100 kW) save energy by giving them a better understanding and control of their facilities' electric use. EIS provides data not only regarding usage and demand, but also identifies when, where and how much power is used in specific areas of each facility. This detailed information allows customers to fine-tune equipment use and operations and to document the impact of those changes. Participating customers monitor their electric usage through a web-based energy information system that allows them to receive historical (up to previous day) 15 minute usage and demand graphics. This information can be used to improve or monitor energy usage patterns, reduce energy use, reduce demands during on-peak periods and better manage their overall energy operations.

APS is encouraging customers to take advantage of EIS by providing a one-time incentive of up to a maximum of \$12,000 or 75% of the cost of installing metering and communications equipment necessary to participate in the program.

Program Modifications

No modifications made during this period.

Program Goals, Objectives and Savings Targets

- Provide monthly energy usage information to participating large non-residential customers.
- Participants identify strategies to lower energy cost by reducing energy usage and demand.
- Educate EIS program participants about utility rate concepts and how managing or reducing their energy consumption through energy-efficiency measures and operational practices can reduce their energy expenses.
- Teach participants how to download billing history information and create spreadsheets to chart and graph their energy use, as well as identify consumption trends and savings opportunities.
- Educate EIS participants about creating reports for management that justify energy-efficient capital expenses intended to produce operations and maintenance ("O&M") savings; and
- Facilitate analysis of what-if scenarios to help large facility managers assess the benefits of capital improvements or operating adjustments to improve energy-efficiency.
- Ultimately save electric (kWh) energy through simple changes in operations and maintenance (low/no cost savings measures).

APS's 2010 Energy Efficiency Implementation Plan approved by ACC Decision No. 71460 and 71444 estimated that the energy efficiency savings expected to result from the Energy Information System could reduce annual peak demand by about .2 MW, 1,800 MWh annually and 27,000 MWh over the life of the measures expected to be installed in 2010

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Programs Terminated

No programs were terminated during this Reporting Period.

Levels of Participation

A total of six customers were added to EIS during this Reporting Period resulting in EIS being installed on 48 meters. A total of 33 customers now participate in EIS, representing 202 meters.

Evaluation and Monitoring Activities and Results

During this Reporting Period the EIS MER research data collection and analysis activities included:

- Conducted ongoing tracking and review of program participation data.
- Currently planning detailed participant research including possible field inspections and data collection activities to assess savings achieved by the program.

MER Adjusted Gross kW and kWh Savings¹

Meters	Est. Measure Life (yrs)	kWh Savings per Year**	Lifetime kWh Savings	kW Demand Savings ²
EIS = 48	15	583,000	8,744,995	76

1. To date, there are no adjustments to the EIS savings since the MER impact evaluation is under review.
2. kW savings is coincident peak.

The final savings are adjusted for line losses (energy 7.8%, demand 11.7%) and a capacity reserve factor of 15%.

Benefits and Net Benefits/Performance Incentive Calculation

The net benefits are provided in Tables 7, 8, and 9, along with the MER adjusted Performance Incentive calculation.

Problems Encountered and Proposed Solutions

No problems to report for this Reporting Period.

Costs Incurred

Costs incurred for this program during this Reporting Period are listed below:

DSM Program	Rebates & Incentives	Training & Technical Assistance	Consumer Education	Program Implement	Program Marketing	Planning & Admin	Program Total Cost
Energy Information Services	\$28,003	\$0	\$0	\$5,356	\$2,216	\$1,537	\$37,112

Findings from all Research Projects

NA

Other Significant Information

NA

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DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

PORTFOLIO PLANNING: DSM MEASUREMENT, EVALUATION AND RESEARCH

Description

On April 12, 2006 in Decision No. 68648, the ACC approved funding for Measurement, Evaluation, and Research ("MER") activities to assist in verifying the impact and cost effectiveness of APS's DSM programs. As required per Decision No. 68648, APS filed MER program plans for Staff's review on August 16, 2007, with the exception of the Energy Information Services ("EIS") MER research plan that was filed on June 24, 2008.

Navigant Consulting provides MER Services for the DSM programs. These Measurement and Evaluation activities include, but are not limited to:

- Performing process evaluation research to indicate how well programs are working to achieve their objectives;
- Performing impact evaluation research to verify that energy-efficient measures are installed as expected; measuring savings on installed projects to monitor the actual program savings that are achieved; and conducting research activities to refine savings and cost benefit models and identify additional opportunities for energy efficiency;
- Tracking savings measurement to monitor the actual program savings that are achieved; and
- Researching additional opportunities for energy efficiency.

The approach for measurement and evaluation of the DSM programs is to integrate data collection and tracking activities directly into the program implementation process.

Program Modifications

Per ACC Decision No. 69663, APS is required to "use measured savings obtained from APS customers by the MER contractor beginning no later than July 1, 2007; and that the averages of actual measured usage, for both standard and upgraded equipment, should be recalculated by the MER from usage samples for each prescriptive measure based on new measurements from the field no less frequently than every two years."

MER adjusted MW and MWh savings estimates are included throughout this Progress Report for the Reporting Period, as well as Year-To-Date and Program-To-Date results.

Program Goals, Objectives and Savings Targets

NA

Programs Terminated

NA

Levels of Participation

NA

Evaluation and Monitoring Activities and Results

Refer to each program section for this information

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

kW and kWh Savings

See MER adjusted savings results in each program section, and in Tables 4, 5, and 6 above.

Benefits and Net Benefits/ Performance Incentive Calculation

See MER adjusted Net Benefits in Table 7, 8, and 9 above.

Problems Encountered and Proposed Solutions

NA

Costs Incurred

Total costs incurred for measurement and evaluation during this Reporting Period were \$1,264,980, which represents approximately 55% of the 2010 MER budget of \$2,300,000.

Findings from all Research Projects

NA

Other Significant Information

Navigant prepared a draft white paper on the Societal Cost Test (SCT) for conducting benefit/cost analysis of DSM programs in the state of Arizona. The white paper presents recommendations from APS, UniSource Energy, and various DSM Collaborative group stakeholders on the interpretation of inputs and methodologies to be used when developing the societal benefit-cost test as prescribed in the proposed rulemaking on electric energy efficiency (Docket No. RE-00000C-09-0427). The whitepaper is intended to provide a consistent, efficient, and transparent method to assess the cost effectiveness of DSM activities.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

AMERICAN RECOVERY AND REINVESTMENT ACT ("ARRA")

ARRA is a federal legislation passed by Congress in February 2009 to stimulate investment, create jobs, and speed economic recovery. ARRA provides for over \$18 billion in energy efficiency funding. The primary objectives of the energy efficiency funding are to build jobs, save energy, and build energy efficiency infrastructure for the long term. The State Energy Program ("SEP") was allocated \$3.1 billion nationally.

The Arizona Energy Office filed an application for \$55 million of the \$3.1 billion SEP funding and they were awarded the funds; The plan includes \$10 million for the State Building Energy Performance Contracting Program and \$20 million for the Energy Efficiency and Renewable Energy in Schools Grant Program, the remaining \$25 million will be distributed to a agriculture grant, 21 Century Grant and utility renewable programs.

Another type of energy efficiency funding from ARRA is the Energy Efficiency and Conservation Block Grants ("EECBG"), which will provide \$64 million directly to Arizona cities and counties. Cities and counties in APS's service territory are eligible for approximately two-thirds of these funds. The majority of these funds have been awarded and we are meeting with the decision makers to ensure our program is leveraged to the fullest extent. Projects have up to three years to be completed and all monies spent.

On December 11, 2008, the Commission issued Decision No. 70637, which approved five of APS's Non-Residential DSM programs. Decision No. 70637 also included the following provision:

"APS shall continually research and monitor other energy-efficiency rebates and incentives, including tax credits, that may be available to its Non-Residential DSM program participants throughout its service territory; and that the Company shall limit its incentive payments to program participants to ensure that the sum of all known monetary incentives, either paid or available to APS program participants from other entities for the same measure is limited to APS's established measure cap (such as 50 percent or 75 percent of incremental cost) unless a different cap is ordered by the Commission."

APS filed for clarification with the Commission on May 8, 2009, as to whether ARRA funds needed to be considered a "known monetary incentive" under Decision No. 70636 or not. The Commission decided in Decision No. 71243 that ARRA funds should not be subject to the existing DSM incentive caps, but that the sum of all incentives, including ARRA, should not exceed 100 percent of the incremental cost of the measure.

ARRA Related Items:

- Talking with the State Energy Office to establish what cities will be awarded grants and what type projects they will be implementing.
- Meeting and calling cities and counties that have received ARRA dollars to establish what type of energy efficient projects they are doing and the project timeline.
- APS has partnered with City of Phoenix on Energize Phoenix Project. This project is targeted toward energy efficient retrofits with residential and non-residential customers. The City of Phoenix will be leveraging the incentives with the APS Home Performance Program and Solutions for Business program.

ARIZONA PUBLIC SERVICE COMPANY

DSM SEMI-ANNUAL PROGRESS REPORT FOR THE PERIOD: JANUARY THROUGH JUNE 2010

- City of Avondale and Town of Cave Creek will be leveraging their ARRA dollars with the Home Performance Program and Solutions for Business Program.

Incentives Paid Out

No incentives paid out during this period

SAMPLE ADVERTISEMENTS



new homes today

800+
great places to
live in Arizona's
best new homes
magazine!

METRO PHOENIX EDITION



The Most
Energy-efficient
Arizona Communities
...how do you know?



APS ENERGY STAR®
Homes Program



What's Your Home's Energy Score?

Did you know that your home has an energy rating called a HERS Score?

A HERS Score is a measurement of energy efficiency derived by a Home Energy Ratings System (HERS) "rater" using specially designed computer software.

Scores typically range between 100 and 0, with a lower score being more energy-efficient and a score of 100 being

equivalent to standard code construction practices.

A score of 85 or less (15% more efficient than code) is necessary for compliance in the APS ENERGY STAR

Homes program. Homes built in the late 1990s – early 2000s likely have energy scores of 120 or more. The

lower the score, the closer a home gets to net zero energy.

The HERS Rater runs a series of tests to evaluate a home's performance:

- Duct Blaster test to assess air leakage from the duct system
- Blower Door test to gauge how tight the building envelope is
- Window inspection for the presence of Low-E coating
- Insulation inspection to ensure there are no gaps, voids or compressions

Ask your homebuilder about their homes' HERS scores to begin dialogue regarding energy efficiency.

ENERGY STAR Homes + Solar

These days, everyone wants to know more about solar. From photovoltaics (PVs) to solar hot water heating, there are many options available to add solar to your home. But, if your home is not energy-efficient first, it would be like putting fuel in a hybrid vehicle that has a hole in the gas tank.

The APS ENERGY STAR Homes + Solar program is designed so that homebuilders meet energy efficiency requirements before implementing any solar enhancements. These builders also offer options for homebuyers to add solar at the time of construction. To ensure true savings and to shorten the return on your solar investment, implement energy efficiency before adding solar.

To learn more about participating APS ENERGY STAR + Solar builders, visit aps.com/solarhomes.



APS ENERGY STAR[®]
Homes Program



These programs are funded by APS customers and approved by the Arizona Corporation Commission.



APS ENERGY STAR[®]
Homes Program



The Most Energy-efficient Arizona Communities ...how do you know?

If you ask any homebuilder, they will tell you that they build a quality home. They will also tell you that they build an energy-efficient home. In fact, sometimes there is confusion as to how to best implement true energy efficiency into a new home.

These features are inspected and tested throughout the construction process so that you get a healthy, comfortable home that operates "as a system" and consumes significantly less energy than a standard home built to code.

But there is good news. You can rest assured that you are buying an energy-efficient home by choosing a builder who is participating in the APS ENERGY STAR Homes program.

Throughout Arizona, there are many energy-efficient communities where homebuilders are currently constructing APS ENERGY STAR homes in all different styles and price ranges, so one is sure to fit your lifestyle and needs.
(See APS ad on page xx)

APS works with Arizona homebuilders constructing ENERGY STAR homes that incorporate energy-efficient features during design and construction.



If you purchase a home in an APS ENERGY STAR community, you get a home that from the planning and design stage is "modeled" for maximum energy efficiency. The initial plan is reviewed by an independent professional Home Energy Rating System (HERS) "rater" or inspector that will make suggestions to the builder on ways to implement the most energy efficiency into the plan design.

Additionally, an APS ENERGY STAR builder goes through specialized building science training to understand specific processes that can be put in place to standardize energy efficiency into their construction timeline for each home.



Features of an APS ENERGY STAR home include:

- Properly installed insulation
- Tightly sealed framing envelope and AC duct system
- High-efficiency AC/Heating systems with fresh air ventilation
- High-efficiency "Low-E" windows
- ENERGY STAR lighting and appliances
- Room pressure balancing
- Independent testing and inspection during construction

Builders who participate in the APS ENERGY STAR Homes program consider the interaction of all of the systems listed above to construct a home that will be healthy and comfortable, save energy and save you money.

Insulation – Insulation acts like a blanket for your home, keeping it cooler in the summer and warmer in the winter. But to perform effectively, insulation needs to be installed correctly with no gaps, compressions, or voids. In many instances it is not necessary to have more insulation or a higher R-value. It is more important to have insulation **installed correctly**, so that it performs to its designed R-value.

Tight Building Envelope & Sealed Ducts –

Up to 30% of energy loss in an average home

is attributed to leaks in the envelope and duct systems. APS ENERGY STAR homes start with a solid foundation and frame.

Even before insulation is added and windows are installed, ENERGY STAR home builders go the extra mile to seal holes and cracks in the home's envelope and duct systems.

High-efficiency AC Systems – Cooling and heating can make up almost half of your energy costs. When your home is tightly constructed, your AC/heating system works much more effectively.

These systems are frequently oversized which causes them to cycle on/off more often than necessary. This can shorten the lifetime performance of the unit.

In participating APS ENERGY STAR communities, builders "right-size" your system to best fit the home, which can save on energy costs.

Low-E Windows – Invisible Low-E glass coating blocks 90% or more of damaging ultraviolet light from entering your home. Low-E windows reduce heat gain and loss resulting in a more comfortable and even room temperature.

Room Pressure Balancing – Internal pressure balancing through the use of jump ducts or transfer grills helps to keep

room pressures balanced, eliminating doors being slammed when the heating and cooling systems turn on. By maintaining an even flow of air throughout the home, pressure balancing significantly improves comfort and efficiency.

Independent Testing and Inspections – APS ENERGY STAR homes are randomly tested by HERS Raters who conduct on-site inspections to ensure that the energy efficiency measures are implemented properly.

Benefits of an APS ENERGY STAR home:

- Monthly savings on utility bills
- Greater year-round comfort
- Improved air quality for better health
- Quality construction
- Independent testing and inspections
- Higher resale value

There are many APS ENERGY STAR communities located throughout Arizona. Start saving money on your energy costs right now.

To learn more about ENERGY STAR homes and communities, visit aps.com/homes.



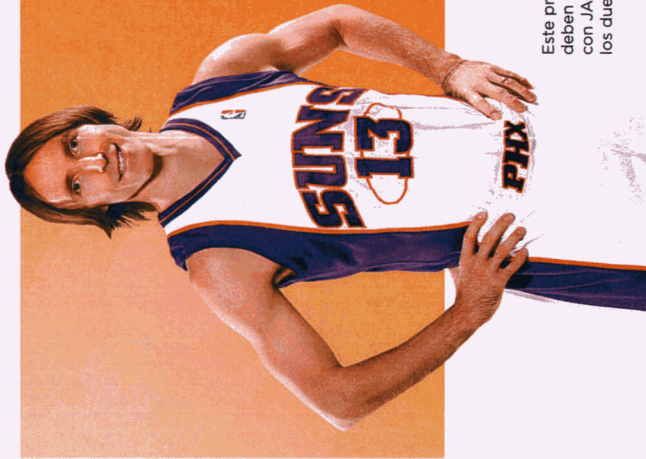
AHORRE ENERGÍA

**DESECHE SU REFRIGERADOR
VIEJO...AHORRE, ¡Y RECIBA
ALGO DE EFECTIVO!**

—STEVE NASH #13

www.aps.com/turnitin

APS



HÁGALE CASO A STEVE:

Los refrigeradores y congeladores viejos gastan mucha energía y cuestan mucho dinero. ¡APS le ayuda a reciclarlo de inmediato! Usted no tiene que cambiar radicalmente su vida para impactar positivamente al medio ambiente. ¡Ni siquiera tiene que sudar! Nosotros recogeremos su refrigerador o congelador gratuitamente, ¡y usted recibirá un reembolso de \$30 dólares! Además, ahorrará hasta \$100 dólares al año en su cuenta de electricidad.

Visite hoy www.aps.com/turnitin ó llame al 877-514-6654 para programar que recojan su unidad.

Reciba un
Reembolso de
\$30

Ahorre hasta
\$100
al año en su cuenta
de electricidad

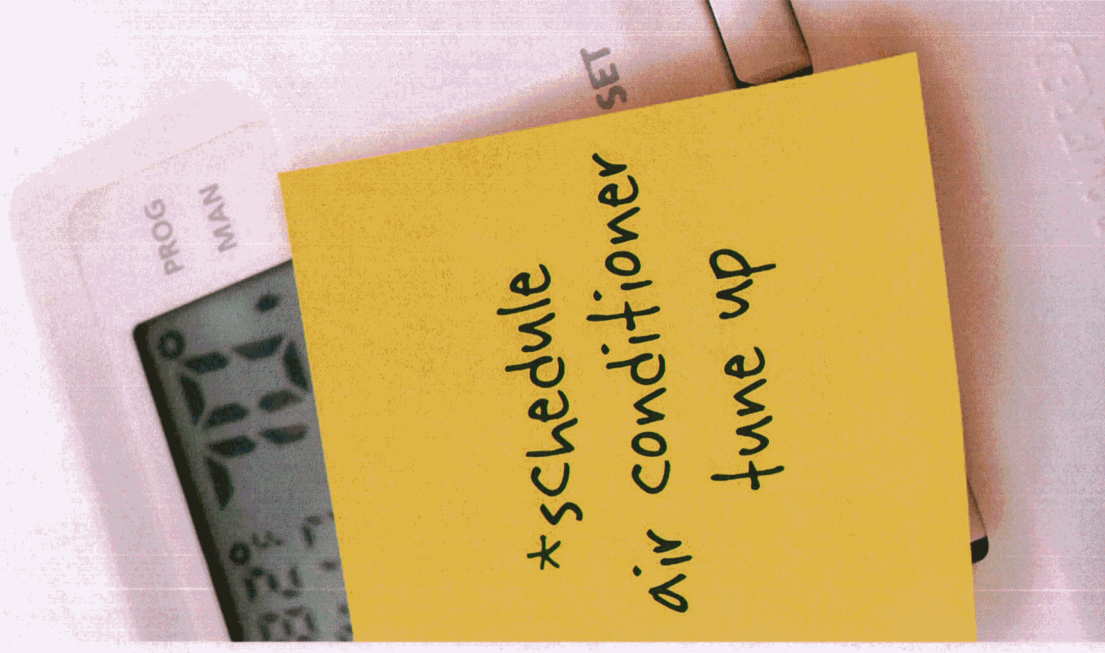


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Este programa es pagado por los clientes de APS y aprobado por la Arizona Corporation Commission. Los refrigeradores y congeladores individuales deben estar en buena condición de funcionamiento y ser de 10 a 30 pies cúbicos de tamaño usando las medidas del interior. APS tiene un contrato con JACO Environmental, una empresa de reciclaje de aparatos electrodomésticos que recoge y recicla las unidades. Los clientes de APS deben ser los dueños de las unidades siendo recicladas. Límite dos unidades por domicilio residencial. Pueden aplicar restricciones adicionales.

A typical Arizona
business spends
30-50% of its
electricity bill
on cooling
and heating.

You can
control your
electricity
costs and
boost your
comfort with
an Advanced
Diagnostic
Tune Up.



www.aps.com/businessrebates

www.aps.com/businessrebates

Now is the time to schedule an Advanced Diagnostic Tune Up for your cooling equipment.

Attention Pays

An Advanced Diagnostic Tune Up can improve the performance of your air conditioning unit and save up to 7% on your cooling costs. If your economizer is malfunctioning, you can save another 5% by having it repaired. And you can save an additional 11% by having your duct system tested and repaired. Together these steps can **cut your cooling costs by more than 20%!**

Prevention Saves

Poorly-maintained equipment consumes more energy and costs more to operate. It also is more prone to breakdowns, which increase repair and downtime costs. In some cases, lack of proper maintenance can void manufacturer warranties.

The Advanced Diagnostic Tune Up provides a comprehensive system assessment – from verifying air flow and refrigerant charge to cleaning coils and tightening loose electrical connections. Technicians use a digital device to measure equipment performance before and after service. The Advanced Diagnostic Tune Up can improve the operating efficiency of your equipment now and identify potential repairs before your equipment breaks.

APS Rebates

The APS Solutions for Business program will pay **75% of the service cost**, up to \$240 per system.

Commercial air conditioning (DX) systems must be at least 3 years old and 4 tons or greater with attached ductwork. The work must be completed by an approved program Trade Ally with ACCA-AZ Professional Air Conditioning certification to qualify for the rebate.

APS offers rebates for a range of energy-saving improvements – from lighting upgrades to high efficiency HVAC units. Visit the program website for more information: www.aps.com/businessrebates

The Solutions for Business program is funded by APS customers and approved by the Arizona Corporation Commission.



Schedule a Service Appointment Today

Only those contractors listed as APS Solutions for Business program Trade Allies and certified by the Air Conditioning Contractors of America-AZ (ACCA-AZ) as Professional Air Conditioning technicians are approved to perform the Advanced Diagnostic Tune Up. **Find an approved contractor online at www.aps.com/businessrebates or call 866-277-5605.**



ENERGY ASSIST:

IT'S TIME TO BENCH YOUR
BACKUP FRIDGE. TURN IT
IN AND GET SOME CASH.

— STEVE NASH #13

www.aps.com/turnitin





TAKE IT FROM STEVE:

Old refrigerators and freezers waste a lot of energy and money. Recycle yours with APS today. You don't have to radically change your life to make an impact. You don't even have to break a sweat: We'll haul that fridge away for free. And you'll get a \$30 rebate. Plus, you'll save up to \$100 a year in utility costs.

Visit www.aps.com/turnitin or call 877.514.6654 to schedule a pick up today.

Get a
\$30
rebate

Save up to
\$100
a year on your
energy bill.

www.aps.com/turnitin



This program is paid for by APS customers and approved by the Arizona Corporation Commission. Refrigerators and stand alone freezers must be in working condition and between 10 and 30 cubic feet using inside measurements. APS contracts with JACO Environmental, an appliance recycler, to pick up and recycle the units. APS residents must own units being recycled. Limit two units per residential address. Additional restrictions may apply.



RECYCLE YOUR OLD FRIDGE AND SCORE \$30.

—STEVE NASH #13

Programs are funded by APS customers and approved
by the Arizona Corporation Commission.

aps.com



Trim Your Restaurant's Energy Costs

You know that running a restaurant takes a lot of energy, but do you know how much energy your restaurant uses? A typical restaurant spends \$3.13/sq. ft. annually for electricity. The good news? You can cut these costs through simple energy-saving steps.

Even better? Rebates from the **APS Solutions for Business** program cut your upfront project costs and make energy efficiency improvements even more affordable. The steps listed below are just a few that qualify for rebates.

Lighting: Simple with Short Payback

- Change overhead T12 fluorescent tubes to T8s with electronic ballasts and save 30-40% of lighting energy use.
- Replace incandescent lamps with CFLs in sconces, hanging lamps and other fixtures. CFLs use 75% less energy, emit less heat and last longer.
- Install occupancy sensors in restrooms, break rooms, storage areas, and walk-ins to save 20-60% of lighting energy.
- Replace existing exit signs with LED signs, which use 70-90% less energy.

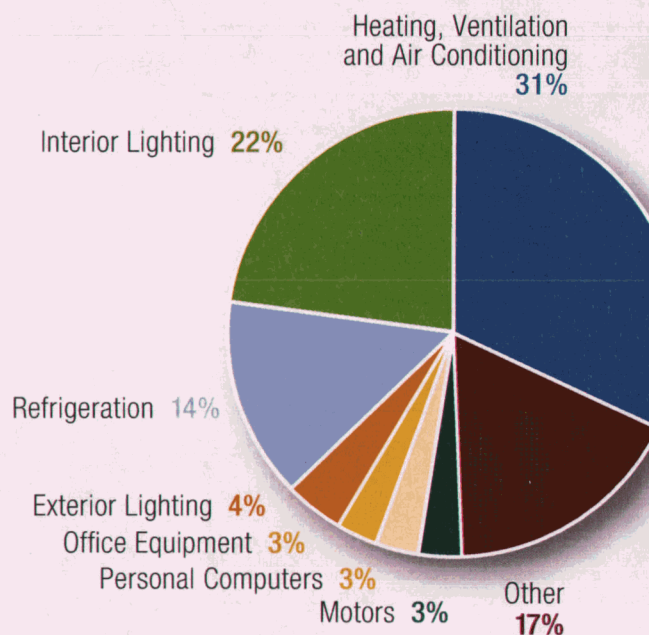
Cooling: Cut Costs and Boost Comfort

- Save up to 7% on cooling costs with an Advanced Diagnostic Tune Up.
- Add a programmable thermostat to reduce cooling use when your business is closed. For each degree you raise the temperature, you'll save 2-3% on your cooling costs.
- When it's time to buy a new system, choose a high efficiency model and save 20-50% of energy use.

Refrigeration: Curb Losses, Not Quality

- Add strip-curtains to your walk-in to reduce air infiltration by up to 75%.
- Install high efficiency evaporative fan motors in refrigerated cases to reduce motor energy use by up to 70%.
- Install anti-sweat heater controls on display cases to cut up to 90% of the heater energy use.
- Add energy-saving controls to beverage vending machines to reduce the machine's consumption up to 80%.
- Purchase ENERGY STAR® labeled commercial refrigerators and freezers, which use up to 35% less electricity.

Typical Electricity End Use in Arizona Restaurants



To learn more, call the Solutions for Business program team at **866-277-5605** or visit **www.aps.com/businessrebates**

The APS Solutions for Business program is funded by APS customers and is approved by the Arizona Corporation Commission.

Special Offer for APS Business Customers: Rebates Increased 20%-30%

Limited Time Only

The APS Solutions for Business program has increased the rebate for three easy energy-efficiency measures. Your project will pay back in energy savings even faster with these special rebates.

Apply by November 30, 2010 to take advantage of the following offers:

- Specialty CFLs (downlight, dimmable, 3-way, locking base) \$5.00 per lamp
- Variable Speed Drives \$60 per horsepower
- HID to T8/T5 Conversion increased by \$25 per fixture

Save Even More

APS business customers can also take advantage of higher rebates on five additional measures: daylight controls, de-lamping, economizers, high efficiency ice makers and snack machine controls. This offer does not expire. But, the sooner you apply for these rebates the sooner you'll be counting your savings.

HOW MUCH WILL YOUR BUSINESS SAVE?

For more information, visit www.aps.com/businessrebates
or call the program team at 866-277-5605.

The Solutions for Business program is funded by APS customers
and approved by the Arizona Corporation Commission.



Solutions
for Business

Summer is coming. Is your AC ready?

The typical Arizona business pays 30%-50% of its electricity bill for cooling. If your air conditioning system hasn't been well maintained, you may be paying even more.

Time for a Tune Up

Just like a car, your air conditioning system works most efficiently and reliably when regularly maintained. An Advanced Diagnostic Tune Up can improve the performance of your commercial air conditioning system and save up to 7% on your cooling costs.

Small Price, Big Savings

The APS Solutions for Business program offers business customers a 75% rebate (up to \$240 per system) for this service.

Schedule a Service Appointment Today

Only those contractors listed as APS Solutions for Business program Trade Allies and certified by the Air Conditioning Contractors of America-AZ as Professional Air Conditioning technicians are approved to perform the Advanced Diagnostic Tune Up. Find an approved contractor online at www.aps.com/businessrebates or call the program team at **866-277-5605**.

APS offers rebates for a range of energy-saving improvements – from lighting upgrades to high efficiency HVAC units. For more information visit: www.aps.com/businessrebates



The Solutions for Business program is funded by APS customers and approved by the Arizona Corporation Commission.

*schedule
air conditioner
tune up



Solutions
for Business



APS Rebates for Commercial Pools

Interested in cutting the operating costs of your commercial pool?

The APS Solutions for Business program can help customers cut their energy costs by improving the energy efficiency of their commercial swimming pool equipment. APS rebates reduce the upfront cost of energy-saving improvements and shorten the payback period.

VARIABLE SPEED DRIVES

Adding a variable speed drive on the pump motor allows the system to vary the flow based on need. This reduces energy use and creates significant cost savings.

Limited Time Offer: We've increased the rebate on variable speed drives to **\$60 per horsepower!** Submit your final application before November 30, 2010 to take advantage of this limited time offer. Applications received after the deadline will be processed at \$50 per horsepower.

MOTORS

An energy-efficient motor saves money every time it runs. Rebates for energy efficient motors range from \$10 to \$30, depending on horsepower.

ELIGIBILITY REQUIREMENTS

- Must be a current, non-residential APS customer
- Equipment must be installed on a commercial swimming pool
- Pool must be located in APS service territory

Download a rebate application at www.aps.com/businessrebates

The Solutions for Business program is funded by APS customers and approved by the Arizona Corporation Commission.



Arizona Lifestyle

February – March 2010

APS

Take the APS Energy Challenge

Challenge yourself to be more energy efficient, reduce your usage and ultimately save money on your bill. The APS Energy Challenge is an online tool that helps you set and achieve energy usage goals. You can find relevant tips that can help you succeed, submit your own tips – and see how your progress and energy efficiency compares with your neighbors. It's quick, easy and fun.

Login to aps.com and take the APS Energy Challenge today. If you don't have an online account, register at www.aps.com/register.

New things to do on aps.com

aps.com has recently added some great new tools designed to help you save energy, time and money.

Go to aps.com and check out these great new features:

- **New and improved "My Account" page** – Find graphs and charts to track your energy use, tools to help you identify causes for bill changes and tips for saving energy. Visit www.aps.com/myaccount to view a demo and for help navigating.
- **CFL Savings Calculator** – Find out how much you can save — and find the compact fluorescent light that best fits each area of your home. Go to www.aps.com/mycfl and the calculator will walk you through each room of your house and help you pick the right CFL for each fixture — and add up your savings.
- **Find out your carbon footprint** – Use the APS Carbon Calculator to measure your carbon footprint and see how small changes can help you reduce it.
- **Interactive bill** – Need help understanding your bill? We have added an interactive bill to aps.com to make understanding your usage and charges a snap. Visit www.aps.com/mybill to see how it works.

- **APS Kids** – Designed just for kids, this page helps them learn about electricity and what they can do to save energy. Younger kids (grades K-3) can find great projects such as making a mini-greenhouse and yummy Solar Snacks. Older kids (grades 3-6) can learn how to make a pizza box solar oven or lightning in their kitchen. These fun, safe experiments teach kids how energy works and the benefits of renewable energy. Visit www.aps.com/Kids, it's a great resource for reports and projects.

Turn in your old refrigerator — get a FREE pick up and a \$30 rebate

That old extra refrigerator or freezer humming away in your garage or storeroom is likely costing you about \$100 in electricity every year. Now there's an easy way to reduce your energy usage, save money and help the environment. Turn in your old refrigerator or freezer for a \$30 rebate. You can have your inefficient, older refrigerator or freezer hauled away for free and safely recycled through the APS Refrigerator Recycling Program.

Recycling your refrigerator helps the environment in two ways. It addresses one of the nation's most notorious household electricity wasters by eliminating older units. On average these relics use about three times more energy — approximately 1,100 kilowatt hours (kWh) per year rather than newer models that use about 450 kWh annually. So recycling a power-hungry refrigerator is like removing 10 tons of carbon dioxide from the air or taking two polluting cars off the road for a year.

Additionally, recycling prevents the release of hazardous chemicals. When older refrigerators and freezers are improperly discarded or dumped in landfills, chlorofluorocarbons (CFCs) are released from the refrigerator's cooling coil and foam insulation, accelerating the buildup of greenhouse gases in the atmosphere.

It's easy to schedule a free pick up. Call 1-877-514-6654 or visit www.aps.com/turnitin. The program is limited to the

continued on back

removal of two units per household, and the refrigerator/freezer must be operable to be eligible. You will receive your \$30 rebate within four to six weeks of the pick up date. Visit www.aps.com/turnitin for more details on the program and the complete eligibility requirements.

This program is funded by APS customers and approved by the Arizona Corporation Commission.

Eliminating envelopes helps the environment

If the return envelope has disappeared from your monthly APS bill and statement package, congratulations! That means you have been helping the environment by consistently making your payment in other ways than by mailing a check.

Paying your APS bill online, by phone, through AutoPay or SurePay eliminates the need for a return envelope, and that saves paper, postage and fuel. Thank you for helping us operate more efficiently and sustainably. To find out more about convenient and environmentally conscious payment alternatives, visit www.aps.com/waystopay.

Safety Net prevents disruption in service

If you or someone you know is elderly, sick, shut in or away from home often, it's possible to overlook a utility bill or shut off notice. To protect your health and safety by preventing any unnecessary disruption in your electric service, APS offers the voluntary Safety Net program.

You can designate a friend, relative or community agency to remind you to pay your APS bill. APS will send that person or agency a copy of any late notice you receive, as well as a copy of any notice that your service may be stopped due to unpaid bills. The duplicate notices give the third party an opportunity to bring any late bills to your attention and offer you advice or aid. They will not be able to discuss your account or be held financially responsible.

Or, to pay your bill automatically, sign up for APS AutoPay, and never worry about your bill again.



To sign up for Safety Net or AutoPay, visit www.aps.com/newsletter or call 602-371-7171 or 800-253-9405.

The 2010 national census

In March, every household in the United States will receive a federal census questionnaire which is required to be returned by April 1. The national census occurs every 10 years and documents population changes throughout the country. It is important that everyone is counted because an accurate count is vital to bringing back funding to communities for local needs and is also used to determine Arizona's representation at the national level.

The most high-profile use for census figures is to determine representation in the United States House of Representatives. An accurate documentation of Arizona's population increase could result in two additional congressional seats.

Federal funding for fire, police, and a variety of community social services often is based on the census tally, so the more people counted, the better for the community. In fact, over 10 years a community could gain as much as \$1 million dollars in federal funding for each person counted.

To ensure an accurate count, every household must file their census questionnaire. Households that have not responded to the initial March census questionnaire will receive a replacement questionnaire in early April and a visit from census workers.

At APS, we understand the value an accurate census count brings to the communities we serve. We are supporting the national census effort by placing census brochures and posters in customer service offices.

Do your part for your country and your community and be counted. Complete and return your federal census form promptly.

WHY USE AN APS REBATE ELIGIBLE CONTRACTOR?

APS Rebate Eligible Contractors are licensed, bonded, insured and committed to rigorous on-going training to ensure your new energy-efficient AC system will:

Save money

Rebate Eligible Contractors can ensure the airflow and refrigerant charge are correct which will save you money.

Lower maintenance costs

Rebate Eligible Contractors will do a sizing calculation to determine the proper equipment size for your home and lifestyle.

Increase your comfort

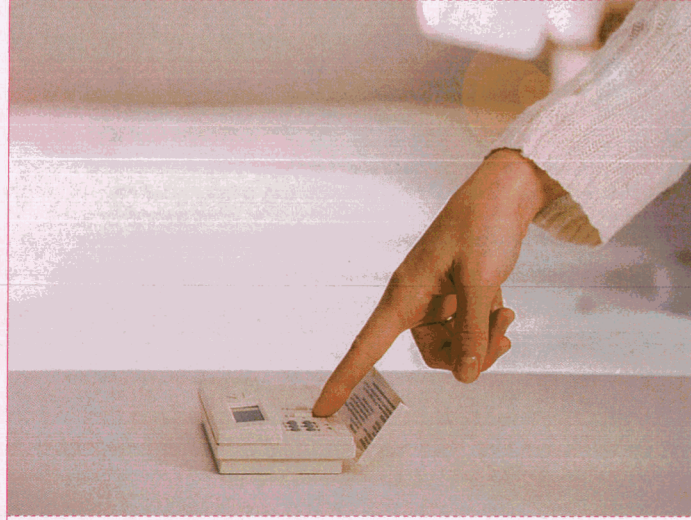
A properly sized and installed unit offers better humidity and temperature control to your home, which increases your comfort.



Program funded by APS customers and approved by the Arizona Corporation Commission.

For more information about the **APS Residential AC Rebate Program**, help completing your rebate application form, or how to find a contractor that can offer the rebates, call the APS Energy Answer Line at **602.371.3636**. If outside Phoenix, call **888.890.9730** or go to aps.com/greenchoice.

Program funded by APS customers and approved by the Arizona Corporation Commission.



SAVE UP TO \$525 ON COOLING COSTS

AC Rebates to Cool Off Your Energy Bill



New electric heat pumps and air conditioning (AC) units are about 40 to 50% more efficient than units installed 15 years ago.

WHY GET A NEW AIR CONDITIONER OR HEAT PUMP?

Save money on your energy bills

New electric heat pumps and air conditioning (AC) units are about 40 to 50% more efficient than units installed 15 years ago. And since summer cooling costs can account for up to 40% of your annual electric bill, an old AC can mean you're spending far more than you should.

Peace of mind

Less chance of summer breakdowns and expensive repairs.

Peace and quiet

Today's AC equipment is typically quieter than older units.

Benefits to the environment

Saving energy helps preserve our natural resources and reduces pollution.

Save Money and Energy All Summer Long

Install an energy-efficient AC system and get up to \$525 in rebates.

WHY IS QUALITY INSTALLATION IMPORTANT?

Improperly installed AC systems waste energy
An analysis of 75,000 field tests revealed that over 75% of installed cooling equipment fails to meet manufacturer specifications for airflow and refrigerant charge.

Bigger is not always better. Studies show that over half of home heat pumps and AC units are oversized, often by as much as 60% to 80%. Oversized cooling units rarely run long enough to reach their rated efficiency level and turn on and off more frequently, which can lead to higher maintenance and energy costs.

The APS Quality Installation standards require that the air flow and refrigerant charge are correct and that a sizing calculation (called a Manual J calculation) is completed. This ensures that the higher efficiency equipment being installed will provide the **performance and comfort** that it was designed to deliver.

APS Rebate Eligible Contractors engage in ongoing training in these practices and are able to install the equipment to meet the Quality Installation standards.

HOW THE REBATE WORKS

You can save up to \$525 when you have an APS Rebate Eligible Contractor replace your older AC system or heat pump with a new, energy-efficient system installed in accordance with APS Quality Installation standards.

Minimum Efficiency Levels*		APS Quality Installation Required for Rebate?	APS Rebate Amount
SEER	EER		
13	10.8	Yes	\$175
14-16	10.8	Yes	\$425
17+	10.8	Yes	\$525

* Rebates available only to APS customers when installed by an APS Rebate Eligible Contractor with Quality Installation.

Here's What You Need To Do

- Your unit(s) must be installed by an APS Rebate Eligible Contractor.
- You can get a free referral to a Rebate Eligible Contractor by calling 602.371.3636 or 888.890.9739 outside of metro Phoenix. A list of all of the Rebate Eligible Contractors can also be found on aps.com/greenchoice.
- You must install a new unit(s) that replaces an existing heat pump or AC in an existing home served by APS.
 - A dated contractor invoice will be required as proof of purchase and installation date. Your invoice must include:
 - Manufacturer
 - SEER and EER efficiency levels
 - Model numbers
 - Proof of installation at your address
 - Window AC units and mini-splits do not qualify for a rebate.
- Rebate amounts are per unit, at a maximum of 5 units per home.
- Your unit(s) must be installed before the end date of the program to be eligible for a rebate. The program will end when rebate funds expire.
- A Residential AC Rebate Application must be submitted to APS within 6 months of your installation date. You must fill out a separate application form for each unit.

HOW TO APPLY FOR YOUR AC REBATE

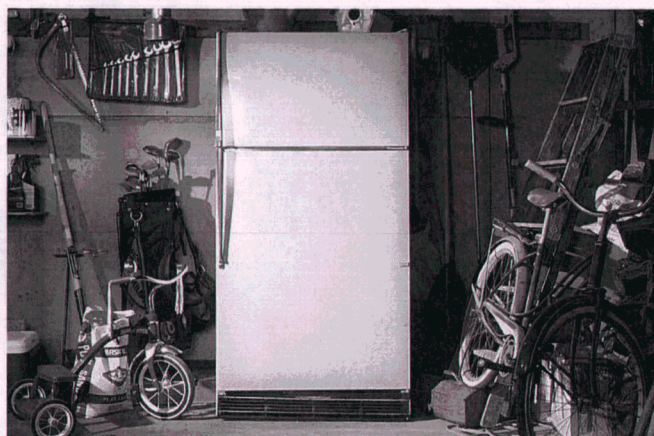
- Make sure that the SEER and EER rating of the unit you are considering is high enough to qualify for the rebate. Go to aps.com for tips that can help you confirm SEER and EER ratings.
- Please be aware that a high SEER rating does not guarantee that a unit will qualify for the rebates. Ask your contractor to verify the SEER and EER ratings in the AHRI Unitary Directory of Certified Products.
- Have a qualifying heat pump or AC unit installed by an APS Rebate Eligible Contractor.
- Fill out a Residential AC Rebate Application. Your contractor will fill out the Quality Installation Test Results part of the application form.
- Mail your completed rebate application and invoice from an APS Rebate Eligible Contractor showing proof of installation and payment to:
APS AC Rebate Program
2001 N. 3rd Street, Suite 106
Phoenix, AZ 85004
- Your information will be verified prior to issuing a rebate check. We conduct on-site inspections at a random sample of homes prior to issuing a rebate check.
- Once your application has been approved, we will mail your rebate check. Please allow 6 to 8 weeks for your rebate application to be processed.

Arizona Lifestyle

JUNE-JULY 2010

NEW HIGH-EFFICIENCY AIR CONDITIONING— SAVE WITH APS AC REBATES

The high heat of Arizona's desert summers can be hard on aging air conditioning units. If your AC unit breaks down this summer and is in need of extensive repairs, it may be more cost effective to replace it with a new one. APS is offering rebates of up to \$525 on new high-efficiency AC units when installed by a Rebate Eligible Contractor. High-efficiency AC units cost a bit more than standard units, but ultimately will save you money by using less electricity. **For more information on the APS AC Rebate program, visit aps.com/newsletter or for a free referral to a contractor who is eligible to offer the AC Rebate call the APS Energy Answer Line at 602.371.3636 or 888.890.9730.**



RECYCLE YOUR OLD REFRIGERATOR—GET IT HAULED AWAY FREE AND RECEIVE A \$30 REBATE

That old, extra refrigerator or freezer humming away in your garage or storeroom is likely costing you about \$100 in electricity every year. But now there's an easy way to reduce energy use, save some money and help the environment. Get rid of your old fridge or freezer. Through APS's Refrigerator Recycling program you can have your inefficient, older refrigerator or freezer hauled away for free and safely recycled. Plus, you'll receive a \$30 rebate.

Recycling your refrigerator helps the environment in two ways. It addresses one of the nation's most

notorious household electricity wasters by eliminating older units. On average these relics use about three times more energy annually than new models. So recycling just one power-hungry refrigerator is like removing five tons of carbon dioxide from the air or taking two polluting cars off the road for a year.

Additionally, recycling your refrigerator or freezer prevents the release of hazardous chemicals into the environment by keeping these appliances out of landfills.

It's easy to schedule a free pickup. Call 877.514.6654 or visit aps.com/turnitin. APS will provide free pickup service and safely recycle 95 percent of the appliance at a Phoenix facility. You will receive your \$30 rebate within four to six weeks of the pickup date.

The program is limited to the removal of two, full-size units per household, and the refrigerator/freezer must be operable to be eligible. **Visit aps.com/turnitin for more details on the program and the complete eligibility requirements.**

MAKE YOUR HOME ENERGY EFFICIENT AND SAVE MONEY

You can save yourself some money by improving your home's energy performance. When you incorporate energy-saving features into your home, you will save money on your energy bills, increase the durability, value, comfort and safety of your home and help the environment.

To make sure you're getting the most from your home improvements, get an APS Home Performance with ENERGY STAR® Checkup. A certified Home Performance Contractor will thoroughly evaluate your home, using the latest state-of-the-art equipment, and provide you with recommendations for energy efficient home improvements that are specifically tailored to your home. They will also install a low-flow showerhead, up to three low-flow faucet aerators and 10 CFLs—all for just \$99 when you use a Home Performance with ENERGY STAR® contractor. And APS has several rebates that can help you offset the cost of energy-efficient improvements.

CONTINUED ON BACK

In fact, APS customers could receive a rebate for 75 percent of the cost (maximum of \$250) of needed repairs to increase your home's energy efficiency, including improving the insulation of your home, adding shade screens, sealing the AC system duct work and sealing air leaks.

To get started, visit www.azhomeperformance.com for a free referral to a BPI-trained contractor who is eligible to provide an APS Home Performance with ENERGY STAR Checkup, or call the APS Home Performance Program at 877.850.8358.

SAVE ON YOUR BILL WITH OUR ONLINE RATE COMPARISON

To help you save money on your electric bill, APS offers a variety of rate plans designed to fit diverse energy use lifestyles. And to help find the rate plan that is best for you, we've developed our online rate comparison tool that analyzes the energy use at your current residence over the past 12 months, and then displays the rate plan that will save you the most. Our online rate comparison is quick, easy and even has a narrated slide show that walks you through the process. **Visit aps.com/newsletter to see if you are on the right plan for your lifestyle.**

LOWER YOUR SUMMER BILLS WITH ENERGY-SAVING TIPS

Summer electric bills are the highest of the year in Arizona's desert regions. But there are a number of simple steps you can take to reduce your energy consumption and lower your electric bill—without major changes to your lifestyle or comfort. **Try the following energy savers or visit aps.com/newsletter for 30 more summer saving suggestions.**

- Set your thermostat at 79 degrees or higher. The higher you set your thermostat, the less it will cost to cool your home. For every degree you raise your thermostat you will save approximately two to three percent on the cooling portion of your bill.
- Using fans is a great way to save energy and remain comfortable because they create a "wind chill" effect that can make you feel up to five degrees cooler. Set your AC thermostat temperature two to three degrees higher, and crank up the fan. But be sure to turn them off when you leave the room for more than 15 minutes.

- Do heat-producing chores such as laundry, baking or vacuuming in the cooler parts of the day. Waiting until it cools off outside will keep your home more comfortable and help reduce the running time of your AC. Also, hold off on doing moisture-producing chores, such as washing dishes and mopping floors until the cooler parts of the day. Your AC works harder in a humid environment.

SAVE MONEY WITH HANDY TOOLS ON YOUR "MY ACCOUNT" PAGE

Your "My Account" page at aps.com has some handy tools that will help you conserve energy and save on your electric bill.

These tools include:

- An at-a-glance overview of your bill
- Links to quickly view and pay your bill
- A "why my bill changed" section that helps you identify reasons for higher or lower monthly bills
- Helpful charts, including:
 - how your electricity costs compare to similar homes
 - your previous year's energy usage
 - monthly appliance cost breakdown.

Log into your new "My Account" page today to take advantage of all the tools that help you take control of your energy use and costs. **For more information and to view a video demonstration of these features visit aps.com/myaccount.**

S'MORES, SOLAR ENERGY AND [APS.COM/KIDS](http://aps.com/kids)

Find out what s'mores and solar energy have in common at aps.com/kids, APS's website designed for hungry young minds. From making gooey, yummy s'mores using solar energy to powering a compact fluorescent light (CFL) with static electricity from your hair, the APS Kids Web site is filled with fun, safe experiments and fascinating energy information that helps kids learn about electricity, renewable energy and energy conservation. **Visit aps.com/kids today... and don't forget the napkins.**

Programs funded by APS customers and are approved by the Arizona Corporation Commission.



MORE HOUSE. LESS ENERGY BILL.

Save Money in the Comfort of Your Own Home.

APS ENERGY STAR Homes Feature:

- + Improved insulation
- + Energy-efficient low-E windows
- + High-efficiency air conditioning
- + Tight construction
- + Energy-efficient appliances
- + Fresh air ventilation

APS ENERGY STAR + Solar Homes Feature:

- + Reduced monthly utility bill
- + Cleaner environment
- + Energy independence
- + Higher resale value for your home

Learn more at www.aps.com/newhomes



APS ENERGY STAR®
Homes Program



These programs are funded by APS customers and are approved by the Arizona Corporation Commission.

PARTICIPATING BUILDERS

For more information, visit aps.com



APS ENERGY STAR®
Homes Program



Ashton Woods Homes
877-609-1187
Estrella Mountain Ranch
Marley Park
Palm Valley
Verrado
Vistancia

Beazer Homes
888-623-2937
Villago

Cachet Homes
480-556-7000
Grayhawk
Verrado

Centex Homes
480-747-6800
Canyon Trails

Chaffey Arizona Inc.
480-949-5981
Tranquil Trail Estates

Copper State Custom
623-465-5882
Custom Homes

Del Webb
866-340-Webb
Anthem at Merrill Ranch
Arroyo Grande
Fireside at Desert Ridge
Fireside at Norterra

Habitat for Humanity
Central Arizona
Flagstaff
Prescott

Homes by Towne
602-996-3800
Surprise Farms

Hope Construction
928-527-3159
Custom Homes

Hunter Custom Homes
928-526-0671
Custom Homes

Jacobson Homes
928-782-1801
Cielo Verde

Joseph Carl Homes
480-306-4592
Estrella Mountain Ranch ☀
Palm Valley

K. Hovnanian Homes
877-KHOV-NOW
Crossriver
Marley Park
Verrado
Vistancia

Keystone Homes
520-421-0999
Ironwood Village

Lennar
800-864-1058
Asante
Lone Mountain
Stetson Valley

Maracay Homes
480-346-2670
Sonoran Foothills
Sonoran Mountain Ranch

MC Homes
480-786-1104
Ghost Hollow Estates

Meritage Homes
623-580-9183
Nicholas Point ☀
Riverstone Estates ☀
Sonoran Foothills ☀
Valley Vista ☀

Meritage Active Adult
623-386-8371
Sundance

Monarch Communities
480-344-7025
Privada ☀

Monterey Homes
480-998-8700
Mirabel Village ☀
Sera Brisa
Verrado ☀

Perricone Development Group
928-329-1360
Terra Bella

Pulte Homes
866-to-Pulte
Anthem at Merrill Ranch
Festival Foothills
Fireside at Norterra
Lone Mountain
Red Rock Village (Tucson)
Stetson Valley
Tartesso
Verrado
White Tank Foothills

RES Contracting, Inc.
928-776-0301
Custom Homes

Richmond American Homes
623-972-5005
Canyon Ridge West

Robson Communities
623-935-6700
PebbleCreek

Rosewood Homes
480-922-6366
DC Ranch
Estrella Mountain Ranch
Vistancia

Shea Homes
480-348-6000
Arroyo Mountain Estates
Vistancia

Sun Pine Homes
800-778-6604
Canyons at Granite Park

Taylor Morrison
623-386-9327
Estrella Mountain Ranch

Trend Homes
623-297-1284
Verrado

Trilogy by Shea Homes
623-215-6315 ☀
Vistancia

T.W. Lewis Company
480-820-0807
Portales
Sonoran Foothills
Vistancia

William Lyon Homes
623-374-4238
Arroyo Mountain Estates

William Ryan Homes
866-608-1468
Estrella Mountain Ranch

- Master Planned Community
- Subdivision
- ☀ - This community includes solar

For specific community information,
please visit www.aps.com/homes

Marketing Collateral:

Program Brochure

A SMARTER WAY TO POWER YOUR POOL

If you're one of the many pool owners in Arizona, you know how important it is to keep your pool clean, clear and healthy. But if you're filtering your pool with a single-speed pump or using a standard timer, a lot of energy and money could be flowing down the drain.

To help make your pool more energy efficient, APS is offering valuable **rebates of up to \$200** on pool pumps and timers. Two-Speed Pumps, Variable-Speed Pumps and Seasonal Pool Timers keep your pool clean and comfortable and use up to 80% less energy.



TWO-SPEED PUMPS
offer the flexibility of high speed for increased water flow and low speed for filtration.



VARIABLE-SPEED PUMPS
maximize flexibility and energy savings with multiple speeds for various applications.



SEASONAL TIMERS
automatically adjust your pump seasonally to operate for the least amount of hours year round to clean your pool efficiently.

HOW TO GET YOUR PUMP OR TIMER

In most cases, APS customers can receive an **instant rebate of up to \$200** at the time of purchase. For variable speed pool pumps, a free pump calibration is required after installation to receive the rebate.

Rebates apply to most types of new, two-speed or variable-speed pumps and seasonal pool timers.

PROGRAM REQUIREMENTS

This offer is good for APS residential customers only. To qualify for a rebate, you will need to show a copy of your APS bill to the participating retailer and complete a short rebate form.

Qualifying pumps must be new and installed on a single family, residential, in-ground swimming pool.

Limit one pump and/or timer rebate per household.

For more information and a list of participating retailers, visit www.aps.com/pools, call 800.230.8904 or ask your pool specialist.

Program Funded by APS customers and approved by the Arizona Corporation Commission.



APS ENERGY EFFICIENT POOLS
REBATE PROGRAM

Dive In to
Energy Savings



Kick-off Event Flyers

It's a Party... for Pools

Dive into Energy Savings with APS, Paddock Pools and Jandy

What's new this pool season? Rebates and savings from APS! Come help us kick off the new APS Energy Efficient Pools Rebate Program. Learn how to save up to 80% on your pool energy costs and get rebates up to \$200 from APS. Come check out:

- FREE Famous Dave's BBQ
- Live radio broadcasts from KPIX Radio
- Great giveaways and free demonstrations of energy-efficient pool products
- Enter to win a variable speed pool pump (courtesy of Jandy) and a collectible signed Steve Nash basketball

Saturday, May 22
10:00 AM to 2:00 PM

Paddock Pools and Spas
6525 E. Thomas Rd.
Scottsdale, AZ 85251
(480) 947-7261

For more information about this event or the APS Energy Efficient Pools Rebate Program, simply contact one of our program representatives:

Victor Silva at (602) 541-8104
vsilva@ecosconsulting.com

Terence Crawford at (314) 753-4441
tcrawford@ecosconsulting.com



www.aps.com/pools

It's a Party... for Pools

Dive into Energy Savings with APS, Shasta Pools and Pentair

What's new this pool season? Rebates and savings from APS! Come help us kick off the new APS Energy Efficient Pools Rebate Program. Learn how to save up to 80% on your pool energy costs and get rebates up to \$200 from APS. Come check out:

- FREE Famous Dave's BBQ
- Live radio broadcasts from KOOL Radio
- Great giveaways and free demonstrations of energy-efficient pool products
- Enter to win a variable speed pool pump (courtesy of Pentair) and a collectible signed Steve Nash basketball

Saturday, May 15
10:00 AM to 2:00 PM

Shasta Pools and Spas
6031 North 16th Street
Phoenix, AZ 85016
(602) 532-3750

For more information about this event or the APS Energy Efficient Pools Rebate Program, simply contact one of our program representatives:

Victor Silva at (602) 541-8104
vsilva@ecosconsulting.com

Terence Crawford at (314) 753-4441
tcrawford@ecosconsulting.com



www.aps.com/pools

It's a Party... for Pools

Dive into Energy Savings with APS, B&L Pools and Hayward

What's new this pool season? Rebates and savings from APS! Come help us kick off the new APS Energy Efficient Pools Rebate Program. Learn how to save up to 80% on your pool energy costs and get rebates up to \$200 from APS. Come check out:

- FREE Famous Dave's BBQ
- Live radio broadcasts from KPIX Radio
- Great giveaways and free demonstrations of energy-efficient pool products
- Enter to win a variable speed pool pump (courtesy of Hayward) and a collectible signed Steve Nash basketball

Saturday, June 5
10:00 AM to 2:00 PM

B&L Pool and Spa Stores
1502 West Bell Road
Phoenix, AZ 85023
(602) 942-6000

For more information about this event or the APS Energy Efficient Pools Rebate Program, simply contact one of our program representatives:


Victor Silva at (602) 541-8104
vsilva@ecosconsulting.com

Terence Crawford at (314) 753-4441
tcrawford@ecosconsulting.com



www.aps.com/pools

Point of Sales Materials





APS Pool Pumps and Seasonal Timers Rebate Program

Want to save up to 80% on your pool energy costs?

APS is now offering rebates up to \$200 on energy efficient pool pumps and seasonal timers. The following rebates are available at your local pool retailer, distributor or builder:

- ✓ **Rebates:**
 - \$200 for a variable speed pump
 - \$100 for a two speed pump
 - \$75 for a seasonal setback timer

All rebates for the 2010 year must be submitted by December 30, 2010 in order to receive payment. Ask your local pool service provider for more information.

www.aps.com


Rebate available for APS customers only. Program funded by APS customers and approved by the Arizona Corporation Commission.



Calling all Pool Professionals...

APS is now offering rebates for energy efficient pool pumps and seasonal timers. In addition, we are offering free training courses on how to properly calibrate a variable speed pump.

- ✓ **Purpose**
To give pool professionals the proper tools to help their customers save energy and money.
- ✓ **Reward**
Program Approved installers will receive \$50 for each pump which is properly set and verified.

Contact your local distributor or retailer for information on upcoming training sessions. Or call an APS program field representative at 602-541-8104 to sign up directly for an upcoming training session!




Program funded by APS customers and approved by the Arizona Corporation Commission.

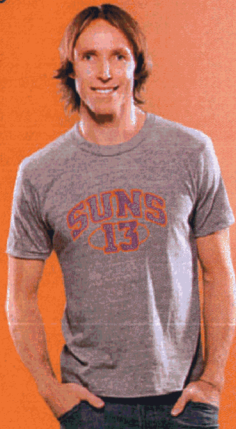
DIVE IN TO ENERGY SAVINGS.

Save up to 80% on pool energy costs by installing an energy-efficient pool pump and APS will help with an instant rebate of up to \$200.

Ask your retailer for more information.

Special pricing brought to you by:


aps.com




This program is funded by APS customers and approved by the Arizona Corporation Commission.

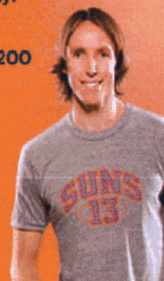
DIVE IN TO ENERGY SAVINGS.

Install an energy efficient pool pump today.

- ✦ Save up to 80% on pool energy costs
- ✦ Get an instant rebate from APS of up to \$200

Special pricing brought to you by:


aps.com



This program is funded by APS customers and approved by the Arizona Corporation Commission.

Ceiling Hangs



Banners

